Disclaimer: Information contained in the report addresses environmental conditions only and is not the official South Florida Water Management District operations recommendation or decision.

M E M O R A N D U M

TO: John Mitnik, Assistant Executive Director, Executive Office Staff

FROM: SFWMD Staff Environmental Advisory Team

DATE: May 28, 2025

SUBJECT: Weekly Environmental Conditions for Systems Operations

Summary

Weather Conditions and Forecast

Generally light southeasterly winds will focus most of the afternoon shower and thunderstorm activity over the central interior today and tomorrow, with significantly less rainfall expected along the east coast, aside from some isolated light morning showers. These weak low-level winds will allow both the east and west coast sea breezes to advance well inland during the afternoon hours, with a potential for boundary collisions over the central interior, coinciding with the areas of heaviest rainfall. By Thursday night, an upper-level disturbance tracking along the northeastern Gulf Coast is forecast to slide southeastward into central Florida. This feature may support the development of a region of strong showers and thunderstorms, which could move into the Kissimmee Valley and portions of the east coast late Thursday night. These storms may produce area-averaged rainfall totals exceeding 0.50” across these regions. On Saturday, a cold front is expected to cross through Florida and potentially stall near central Florida, around the Lake Okeechobee region. There remains considerable uncertainty regarding the eventual placement and movement of the front. If it stalls, rainfall could increase south of the boundary, with below-average amounts likely to the north. By early next week, a surge of tropical moisture from the Caribbean, possibly associated with a tropical disturbance, could move northward into Florida in advance of the front. This could increase rainfall amounts, particularly to the south of the frontal zone, while also complicating the extended forecast outlook. Near normal total SFWMD rainfall is forecast for the 7-day period ending next Tuesday morning.

Kissimmee

In the past week, releases from East Lake Toho and Lake Toho were managed to allow their stages to cross the Zone A lines above their respective low pool stages on June 1. Weekly average discharge on May 25, 2025, was 390 cfs at S-65 and 310 cfs at S-65A, respectively. Mean weekly water depth on the Kissimmee River floodplain increased by 0.01 feet to 0.23 feet. The weekly average concentration of dissolved oxygen in the Kissimmee River increased from 7.5 mg/L the previous week to 7.6 mg/L, which is above

both the potentially lethal level of 1.0 mg/L and the stressful level of 2.0 mg/L (**Figure KB-6**).

Lake Okeechobee

Lake Okeechobee stage was 9.62 feet NAVD88 (10.94 ft NGVD29) on May 25, 2025, which was 0.21 feet lower than the previous week and 0.58 feet lower than a month ago. Average daily inflows (excluding rainfall) decreased from 670 the previous week, to 410 cfs. Average daily outflows (excluding evapotranspiration) increased from 410 cfs the previous week to 2,300 cfs. The most recent non-obscured satellite image from May 25, 2025, suggests moderate to high cyanobacteria activity in and around Fisheating Bay, and along the northwest shoreline.

Estuaries

Total inflow to the St. Lucie Estuary averaged 165 cfs over the past week with no flow coming from Lake Okeechobee. Mean salinities increased at all sites in the estuary. Salinity in the middle estuary was in the optimal range (10-25) for adult eastern oysters.

Total inflow to the Caloosahatchee Estuary averaged 706 cfs over the past week with 200 cfs coming from Lake Okeechobee. Over the past week, surface salinities decreased at Val I75, increased at S-79, and increased slightly at the remaining sites within the estuary. Salinities were in the optimal range (0-10) for tape grass at S-79 and Val I-75, and greater than the optimal range (>10) at Ft. Myers. Salinities were in the optimal range for adult oysters at Cape Coral, and in the stressed range at Shell Point and Sanibel.

Stormwater Treatment Areas

For the week ending Sunday, May 25, 2025, 3,300 ac-ft of Lake Okeechobee water was delivered to the FEBs/STAs. The total amount of Lake releases sent to the FEBs/STAs in WY2026 is approximately 17,900 ac-feet. The total amount of inflows to the STAs in WY2026 is approximately 30,000 ac-feet. STA cells are near or above target stage except STA-5/6 EAV cells that are below target stage. STA-1E Central Flow-way is offline for construction activities and STA-2 Flow-way 3 is offline for a SAV recovery drawdown. Operational restrictions are in effect in STA-1E Western Flow-way, STA-2 Flow-ways 2 and 4, and STA-3/4 Eastern Flow-way for vegetation management activities. An additional restriction is in place in STA-2 Flow-way 1 for inflow canal dredging. STA-1W Eastern Flow-way and Cell 8 and STA-2 Cell 3 contain nests of Migratory Bird Treaty Act protected species. This week, if LOSOM Recovery Operations to lower the lake level recommends Lake releases to the WCAs and conditions allow, releases will be sent to STA-2.

Everglades

Above average rainfall was recorded last week, predominantly in WCA-3A where we saw increases in stage compared to the week prior. In previous weeks, WCA-3A — an important region for wading bird foraging in the late dry season — has experienced both stage ascension and recession. Without the capability to monitor nesting activity from the air (grounded helicopter), there is uncertainty regarding the current status of wading bird nesting. Recent rains meant a reduction in recession rates and ascension in this region, which could be beneficial for wading birds by helping to maintain water depths needed for optimal foraging habitat and nest success. Poor stork and white ibis nesting success

is expected due to below average dry season depths and the rapid decline in suitable foraging habitat. Moderate rain input and inflows, meaning a slower recession, would improve nesting prospects for both wood storks and white ibis. Meanwhile, salinities in Florida Bay remain well-positioned for this point in the dry season. Florida Bay's minimum flows and levels (MFL) metrics remain outside of harmful thresholds, but salinities at Taylor River are trending towards the threshold there.

Supporting Information

Kissimmee Basin

Upper Kissimmee

On May 25, 2025, mean daily lake stages were 54.4 feet NAVD88 (0.01 feet below schedule) in East Lake Toho, 51.0 feet NAVD88 (0.1 feet below schedule) in Lake Toho, and 48.4 feet NAVD88 (2.0 feet below the Increment 1 Temporary Deviation schedule) in Lakes Kissimmee-Cypress-Hatchineha (KCH) (**Table KB-1**, **Figures KB-1-3**).

Lower Kissimmee

For the week ending May 25, 2025, mean weekly discharge was 390 cfs at S-65 and 310 cfs at S-65A, respectively. Mean weekly discharge from the Kissimmee River was 310 cfs and 250 cfs at S-65D and S-65E, respectively (**Table KB-2**). Mean weekly headwater stages were 45.2 feet NAVD88 at S-65A and 24.6 feet NAVD88 at S-65D. Mean weekly river channel stage increased by 0.4 feet to 30.7 feet NAVD88 (**Figure KB-4**). Mean weekly water depth on the Kissimmee River floodplain increased by 0.01 feet to 0.23 feet (**Table KB-2**, **Figure KB-5**). The weekly average concentration of dissolved oxygen in the Kissimmee River increased from 7.5 mg/L the previous week to 7.6 mg/L (**Table KB-2**, **Figure KB-6**).

Water Management Recommendations

Cease discharges in East Lake Toho and Lake Toho, allowing lake stages to cross the Zone A lines slightly above the low pools of their respective schedules and to reduce inflows to downstream KCH. Follow the Headwaters Revitalization Schedule (HRS) Increment 1 Temporary Deviation Discharge Plan for S-65/S-65A (**Figure KB-7**). Target flows at S-65A of 300 cfs while KCH stage remains within Zone B4 of the Increment 1 Discharge Plan.

Table KB-1. Average discharge for the preceding seven days, Sunday's average daily stage and Sunday's average daily departure from Kissimmee Chain of Lakes (KCOL) flood regulation lines or temporary schedules. All data are provisional.

Water Body	Structure	Stage Monitoring Site	Weekly (7-Day) Average Discharge (cfs)	Sunday Lake Stage (feet NAVD88)[a]	Schedule Type[b]	Sunday Schedule Stage (feet NAVD88)	Sunday Departure from Regulation (feet)	
							5/25/25	*5/18/25*
Lakes Hart and Mary Jane	S-62	LKMJ	17	58.5	R	58.5	0.0	0.0
Lakes Myrtle, Preston and Joel	S-57	S-57	0	59.1	R	59.1	0.0	0.0
Alligator Chain	S-60	ALLI	3	61.2	R	61.2	0.0	-0.1
Lake Gentry	S-63	LKGT	32	58.5	R	58.6	-0.1	0.0
East Lake Toho	S-59	TOHOE	160	54.4	R	54.3	0.1	0.0
Lake Toho	S-61	TOHOW S-61	270	51.0	R	51.1	-0.1	-0.3
Lakes Kissimmee, Cypress and Hatchineha	S-65	KUB011 LKIS5B	390	48.4	T	50.4	-2.0	-2.0

a. Names of in-lake monitoring sites and structures used to determine lake stage. If more than one site is listed, an average is reported.

b. A: projected recession line; R: USACE regulation schedule; S: temporary recession target line; T: temporary schedule; NA: not applicable or not available.

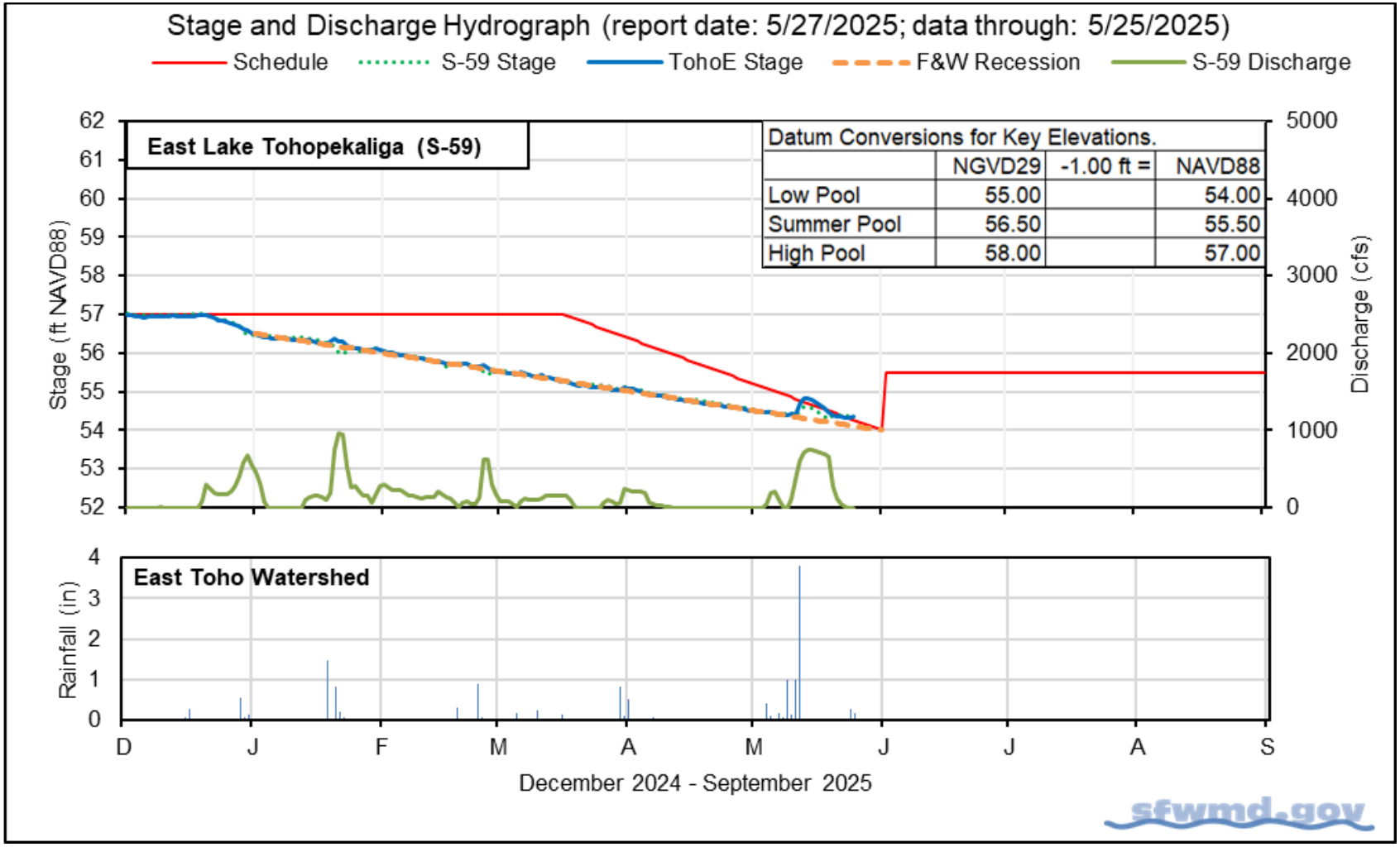


Figure KB-1. East Lake Toho regulation schedule, stage, discharge, and rainfall.

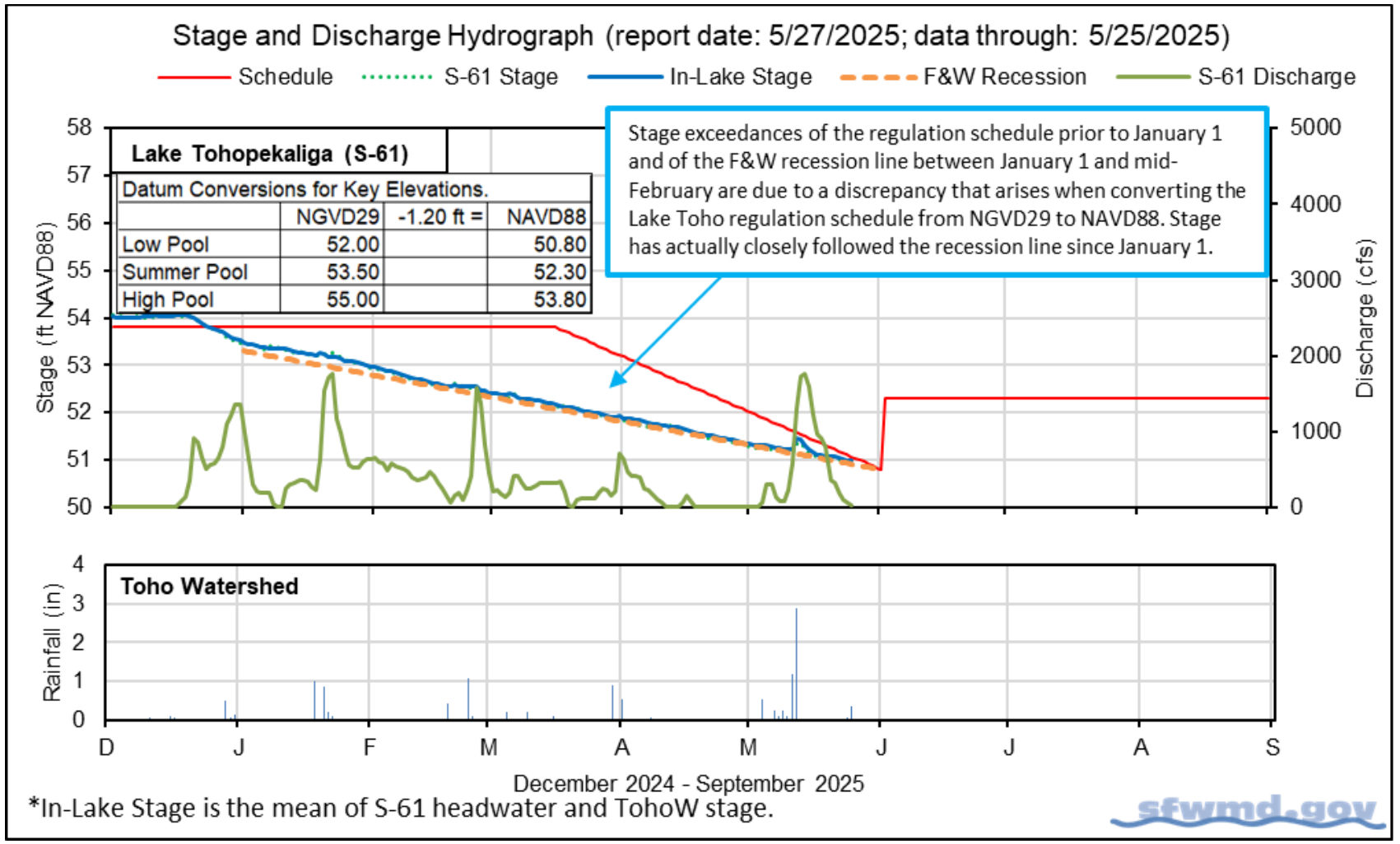


Figure KB-2. Lake Toho regulation schedule, stage, discharge, and rainfall.

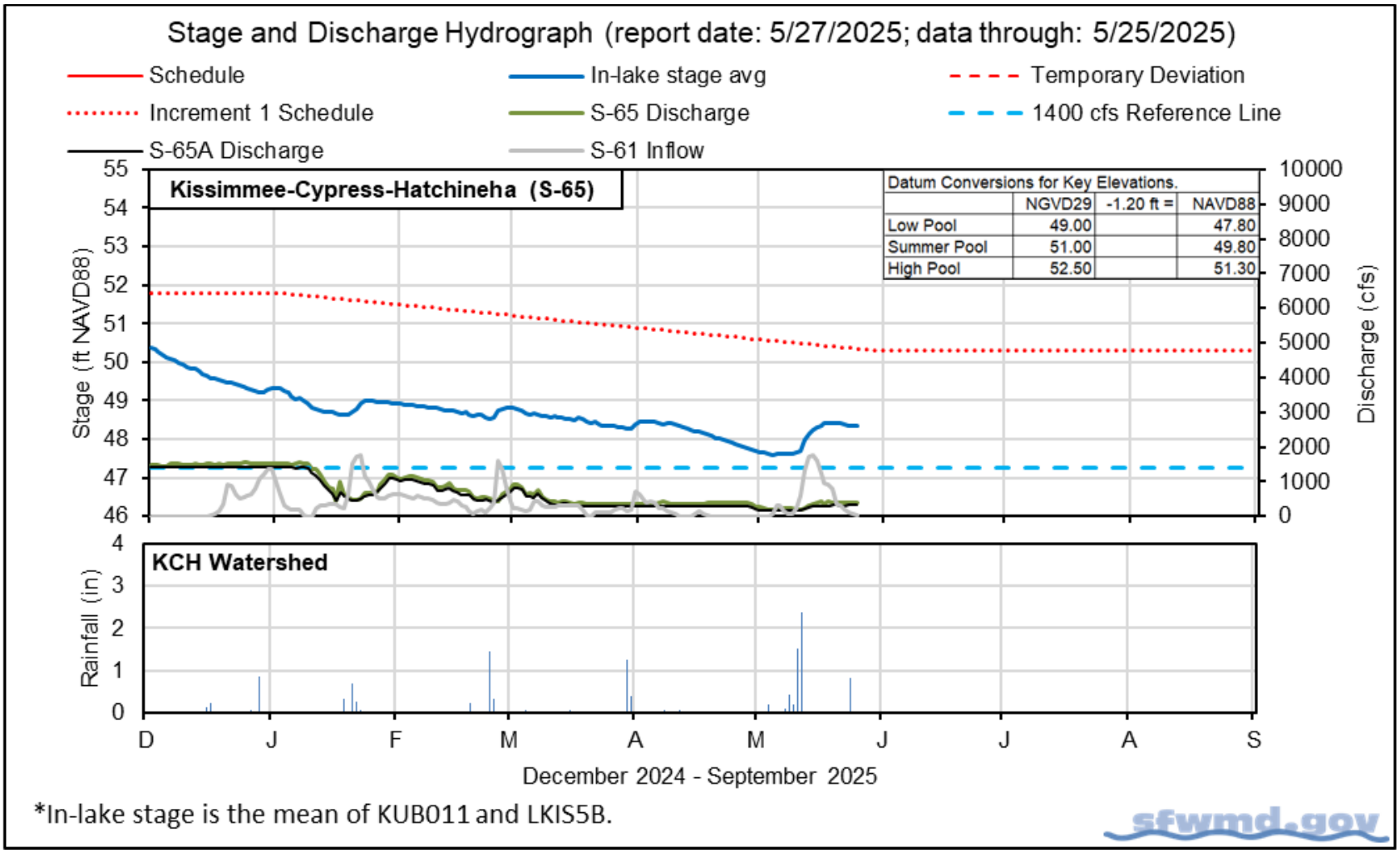


Figure KB-3. Lakes Kissimmee, Cypress and Hatchineha regulation schedule, stage, discharge, and rainfall.

Table KB-2. One- and seven-day average discharge and stage at Lower Kissimmee basin structures, river channel dissolved oxygen concentrations and water depths in the Phase I area floodplain. All data are provisional.

Metric	Location	Sunday Daily Average	Weekly Average for Previous Seven Day Periods			
		5/25/25	5/25/25	5/18/25	5/11/25	5/4/25
Discharge	S-65	380	390	360	210	280
Discharge	S-65A[a]	320	310	290	160	200
Headwater Stage (feet NAVD88)	S-65A	45.3	45.2	45.2	45.3	45.2
Discharge	S-65D[b]	380	310	250	160	220
Headwater Stage (feet NAVD88)	S-65D[c]	24.5	24.6	24.7	24.5	24.4
Discharge (cfs)	S-65E[d]	310	250	230	110	170
Discharge (cfs)	S-67	0	0	0	0	0
Dissolved Oxygen (mg/L) [e]	Phase I, II/III river channel	7.3	7.6	7.5	6.7	7.7
River channel mean stage (feet NAVD88) [f]	Phase I river channel	30.8	30.7	30.3	29.8	30.2
Mean depth (feet) [g]	Phase I floodplain	0.25	0.23	0.22	0.22	0.23

a. Combined discharge from main and auxiliary structures.

b. Combined discharge from S-65D, S-65DX1, and S-65DX2.

c. Average stage from S-65D and S-65DX1.

d. Combined discharge from S-65E and S-65EX1.

e. Dissolved oxygen is the average of values from sondes KRBN, PC62, PC33, PD62R, and PD42R.

f. Mean of five river channel stations (PC62, KRDR02, KRBN, PC33, PC11) in the Phase I area.

g. One-day spatial average obtained from the South Florida Water Depth Assessment Tool (SFWDAT).

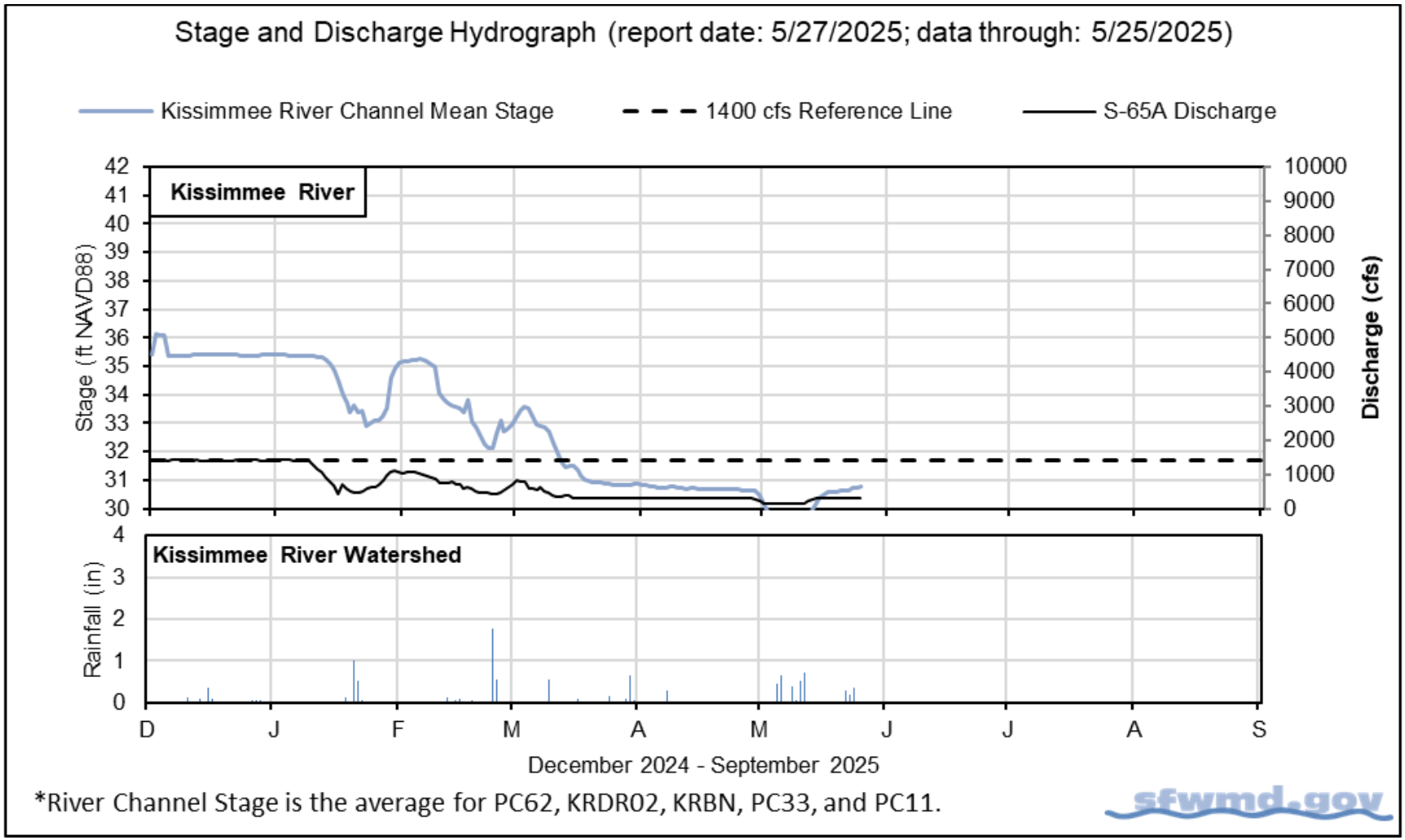


Figure KB-4. Kissimmee River stage, discharge, and rainfall.

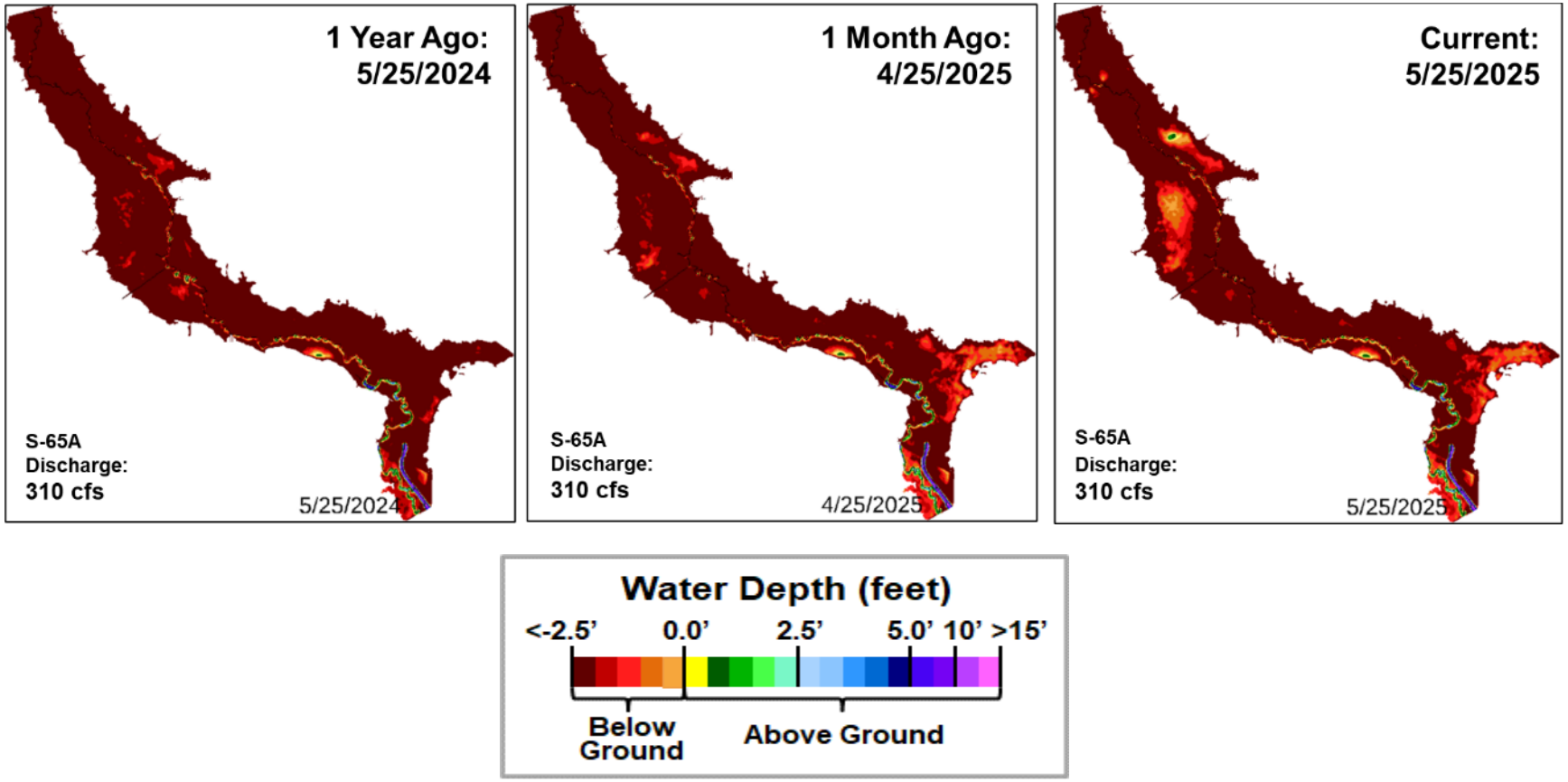


Figure KB-5. Phase I-II-III area Kissimmee River floodplain water depths (from left to right) one year ago, one month ago, and current.

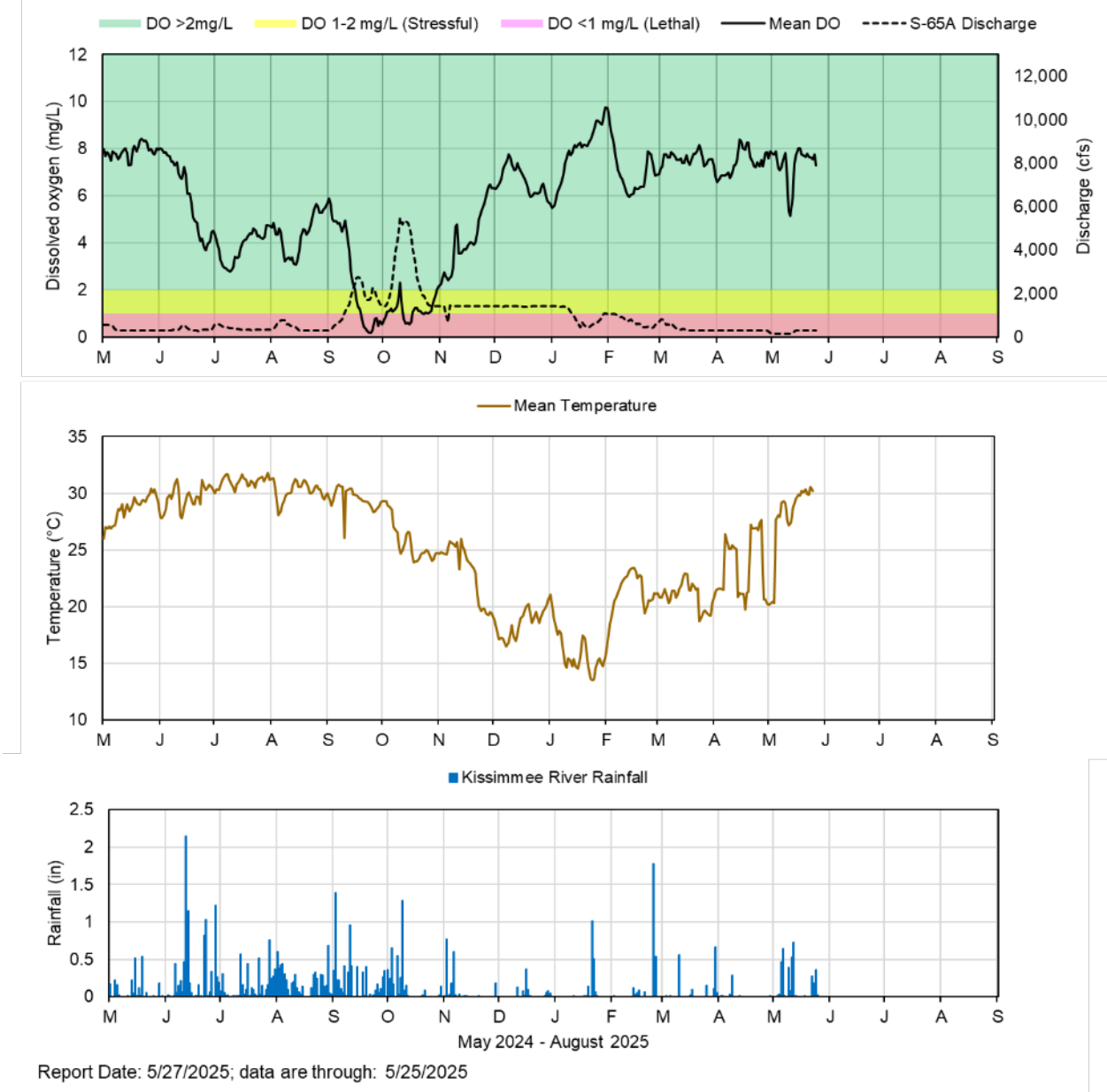


Figure KB-6. Kissimmee River channel mean daily dissolved oxygen concentration (mg/L), S-65A discharge (cfs), temperature (°C) and rainfall (inches). Dissolved oxygen (DO) and temperature are mean daily values averaged for PC62, KRDR02, KRBN, PC33, PC11, PD62R, and PD42R with an average of five stations reporting this week. Rainfall values are daily totals for Kissimmee River (Pool BCD) AHED watershed.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

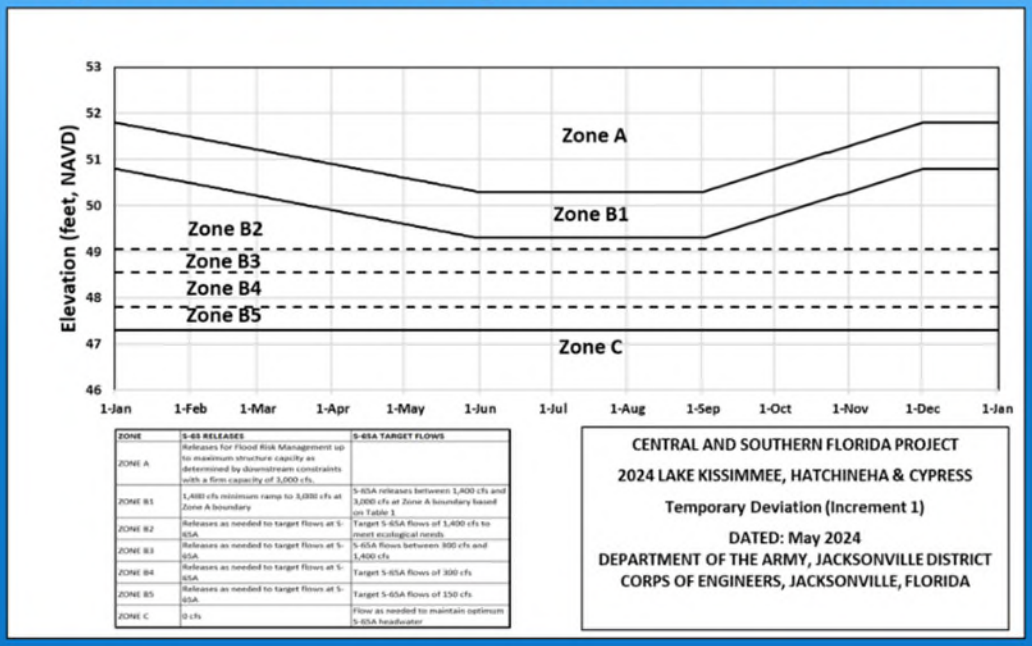
HRS Increment 1 Temporary Deviation Discharge Plan for S-65/S-65A

Discharge Guidance for Increment I Temporary Deviation Discharge Plan		
ZONE	**S-65 RELEASES**	**S-65A TARGET FLOWS**
ZONE A	Releases for Flood Risk Management up to maximum structure capcity as determined by downstream constraints with a firm capacity of 3,000 cfs.	
ZONE B1	1,400 cfs minimum ramp to 3,000 cfs at Zone A boundary	S-65A releases between 1,400 cfs and 3,000 cfs at Zone A boundary based on Table 1
ZONE B2	Releases as needed to target flows at S-65A	Target S-65A flows of 1,400 cfs to meet ecological needs
ZONE B3	Releases as needed to target flows at S-65A	S-65A flows between 300 cfs and 1,400 cfs
ZONE B4	Releases as needed to target flows at S-65A	Target S-65A flows of 300 cfs
ZONE B5	Releases as needed to target flows at S-65A	Target S-65A flows of 150 cfs
ZONE C	0 cfs	Flow as needed to maintain optimum S-65A headwater

Table KB-3. Maximum Rate of Change Limits for S-65A

MAXIMUM Release Rate of Chane Limits for S-65A. **In general recommended rates of change will be slower than shown in this table.**

Q (cfs)	Maximum rate of INCREASE (cfs/day)	Maximum rate of DECREASE (cfs/day)
0-300	50	-50
301-650	75	-75
651-1400	150	-150
1401-3000	300	-600
>3000	1000	-2000



Other Considerations

- When possible, limit lake ascension rate in the Jun 1 - Aug 15 window to 0.25 ft per 7 days in Lakes Kissimmee, Cypress, Hatchineha (S-65), East Toho (S-59) and Toho (S-61).
- If outlook is for extreme dry conditions meet with KB staff to discuss modifications to this plan.

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10

Figure KB-7. Headwaters Revitalization Schedule (HRS) Increment 1 Temporary Deviation Discharge Plan for S-65/S-65A.

Lake Okeechobee

Lake Okeechobee stage was 9.62 feet NAVD88 (10.94 ft NGVD29) on May 25, 2025, which was 0.21 feet lower than the previous week and 0.58 feet lower than a month ago (**Figure LO-1**). Lake stage is in Zone D of the regulation schedule, 0.35 feet above the Water Shortage Management Band, (**Figure LO-2**) and 0.06 feet below the lower limit of the recovery ecological envelope (**Figure LO-3**). According to NEXRAD, 0.71 inches of rain fell directly over the Lake during the previous week.

Average daily inflows (excluding rainfall) decreased from 670 the previous week, to 410 cfs. The highest inflow came from the Kissimmee River via the S-65E structure (250 cfs). Average daily outflows (excluding evapotranspiration) increased from 410 cfs the previous week to 2,300 cfs. **Figures LO-4 and LO-5** show the combined average daily inflows and outflows for the Lake over the past eight weeks, and average inflows and outflows last week, respectively.

In the most recent non-obscured satellite image from May 25, 2025, NOAA's Harmful Algal Bloom Monitoring System continues to suggest moderate to high cyanobacteria activity in and around Fisheating Bay, and along the northwest shoreline (**Figure LO-6**).

Note: All data presented in this report are provisional and are subject to change.

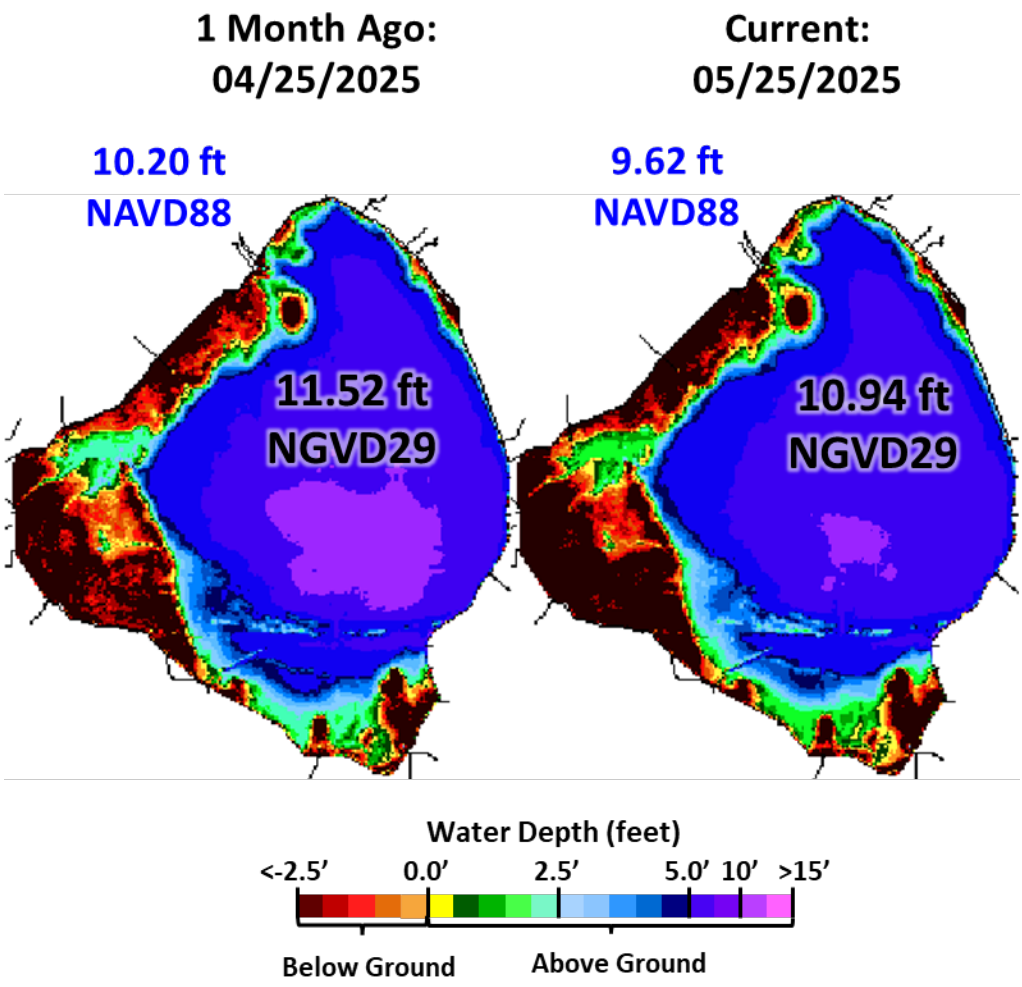

Figure LO-1. Lake Okeechobee water depth estimates based on South Florida Water Depth Assessment Tool (SFWDAT).

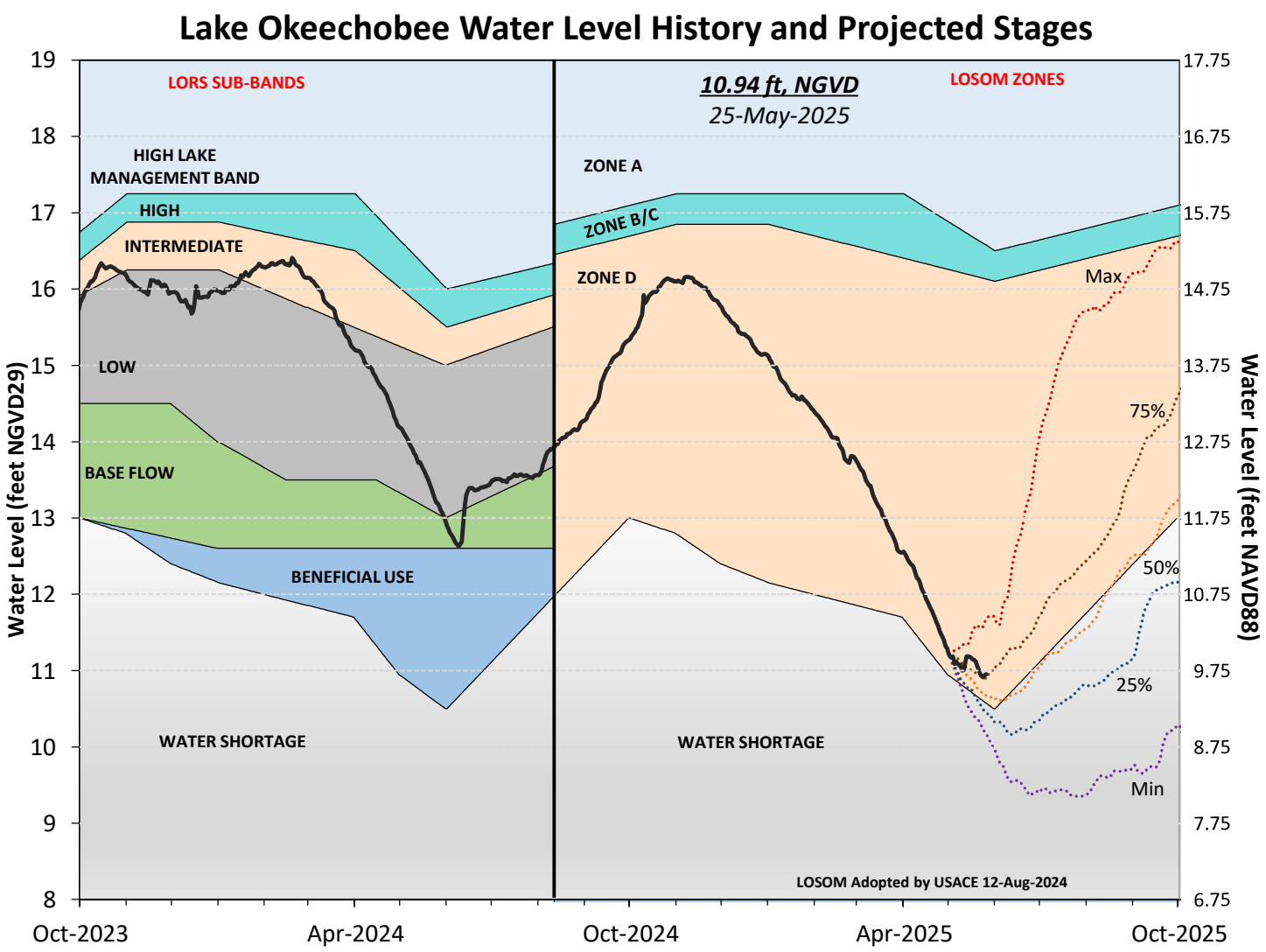

Figure LO-2. Recent Lake Okeechobee stages with projected stages based on a dynamic position analysis. Note: stages are in NGVD29, approximate NAVD88 values are shown for reference.

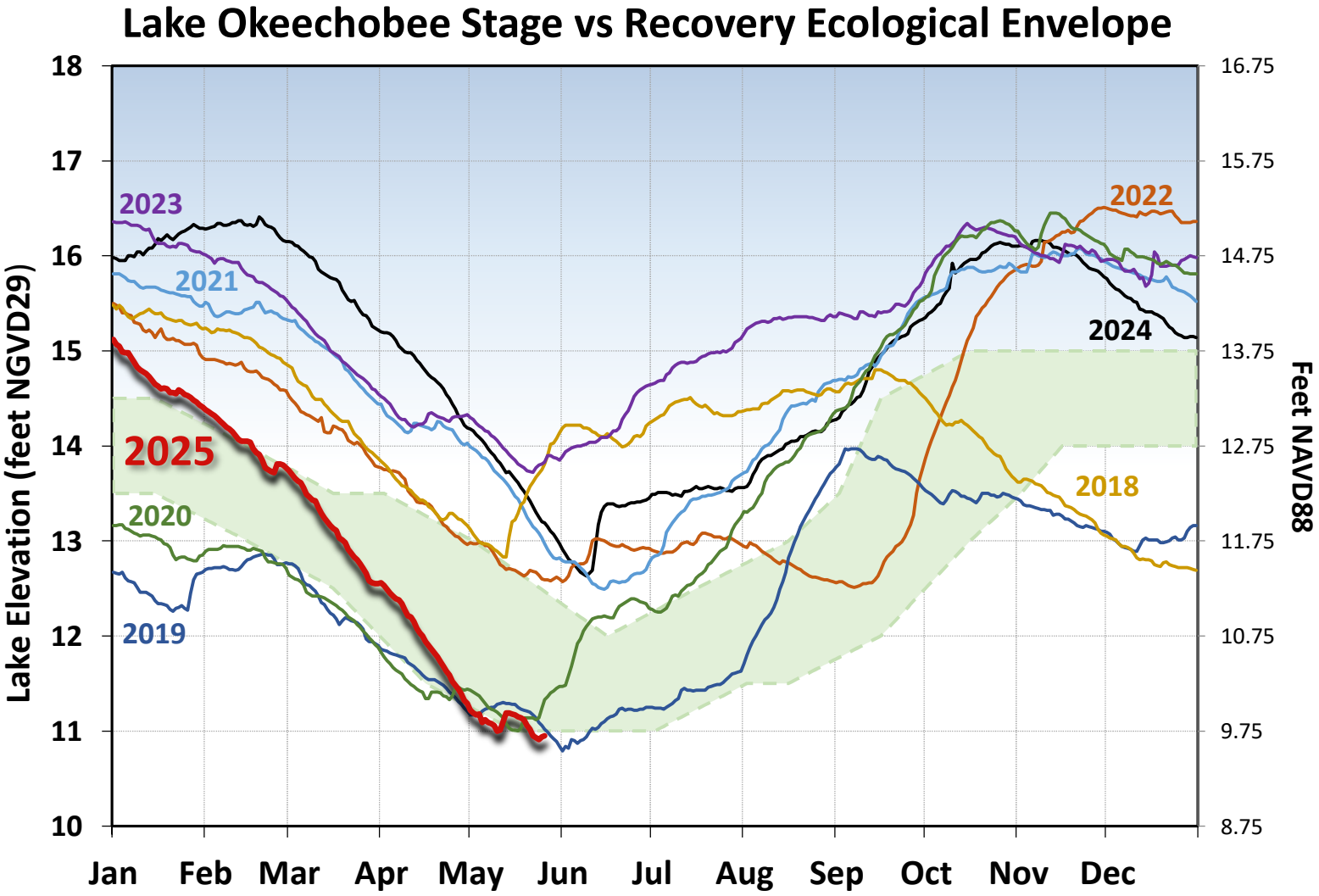

Figure LO-3. The current and seven prior year's annual stage hydrographs for Lake Okeechobee in comparison to the recovery envelope (light green). A shift from the normal ecological envelope to the recovery envelope occurred because the 30-day minimum lake stage (elevations exposed for at least 30 days, nonconsecutively) in the June 1 – July 31, 2023, window was >13 ft NGVD29 (11.75 ft NAVD88).

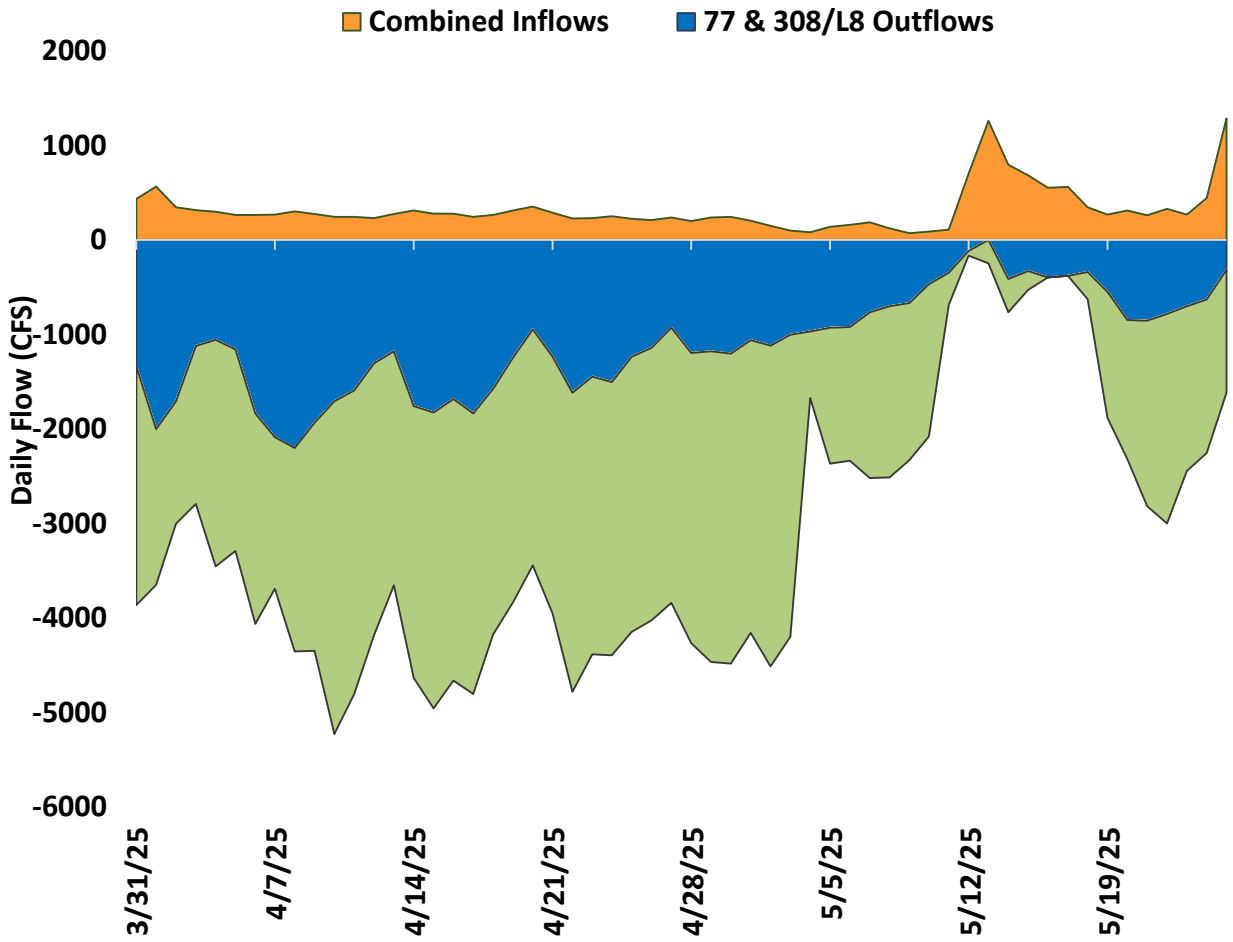

Figure LO-4. Major inflows (orange) to and outflows east and west (blue) from Lake Okeechobee. Outflows south are shown in green. Flows into Lake Okeechobee from the L-8 canal through S-271 (formerly Culvert 10A) or from the C-44 canal through the S-308 are included as inflows. Conversely, flows from Lake Okeechobee into the L-8 or C-44 canals are included with outflows. Inflows are shown as positive values; outflows are negative. Outflows through the S-77 (Caloosahatchee) and S-308 (C-44 Canal) structures are based on downstream gauges to include flows to lock openings for navigation.

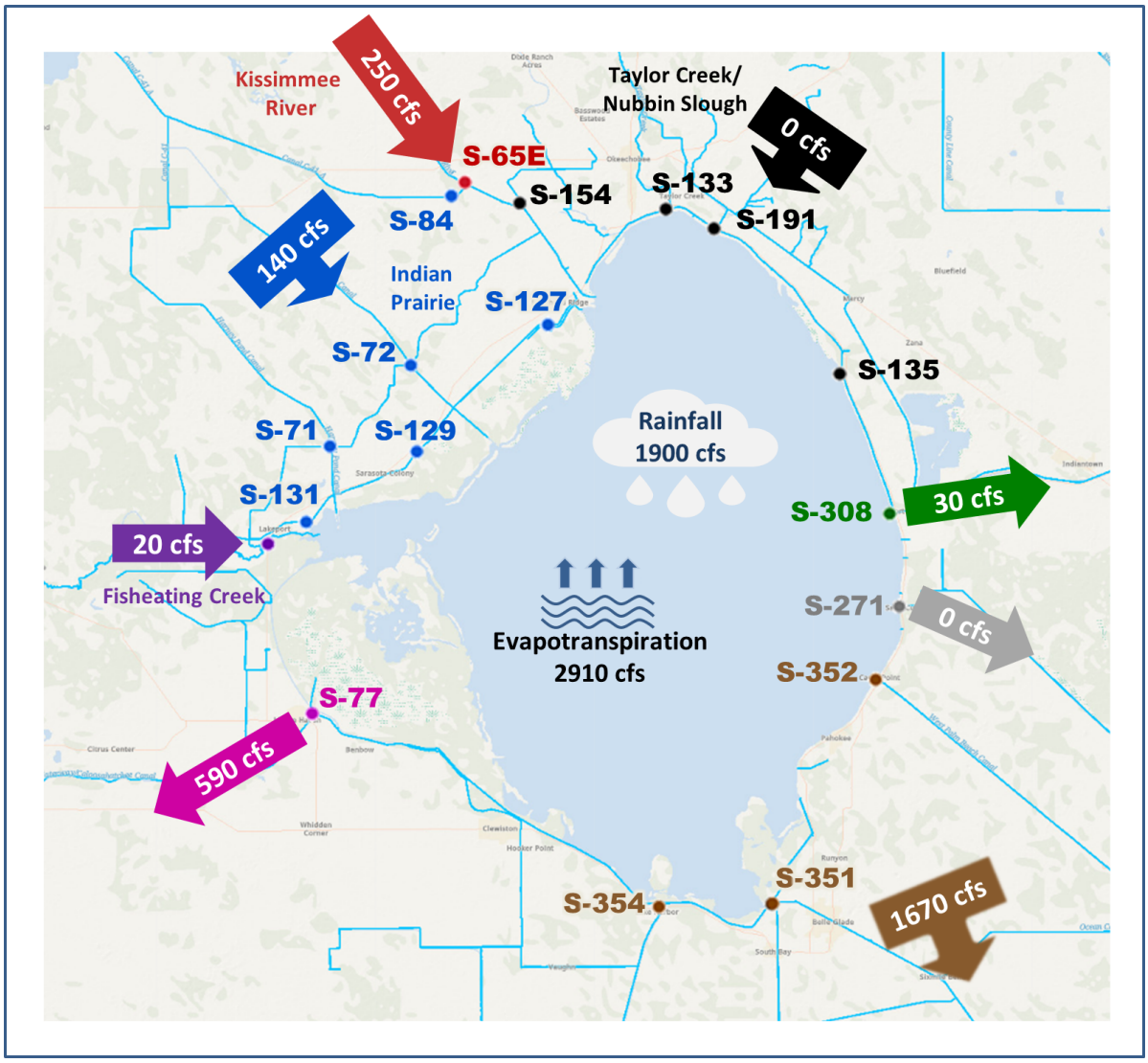

Figure LO-5. Inflows into Lake Okeechobee from Indian Prairie basins, Taylor Creek/Nubbin Slough, Kissimmee River and Fisheating Creek, and outflows to the west via S-77, to the east via S-308, to the south via S-351, S-352, S-354, and to southeast via S-271 (formerly Culvert 10A) for the week of May 19 – 25, 2025.

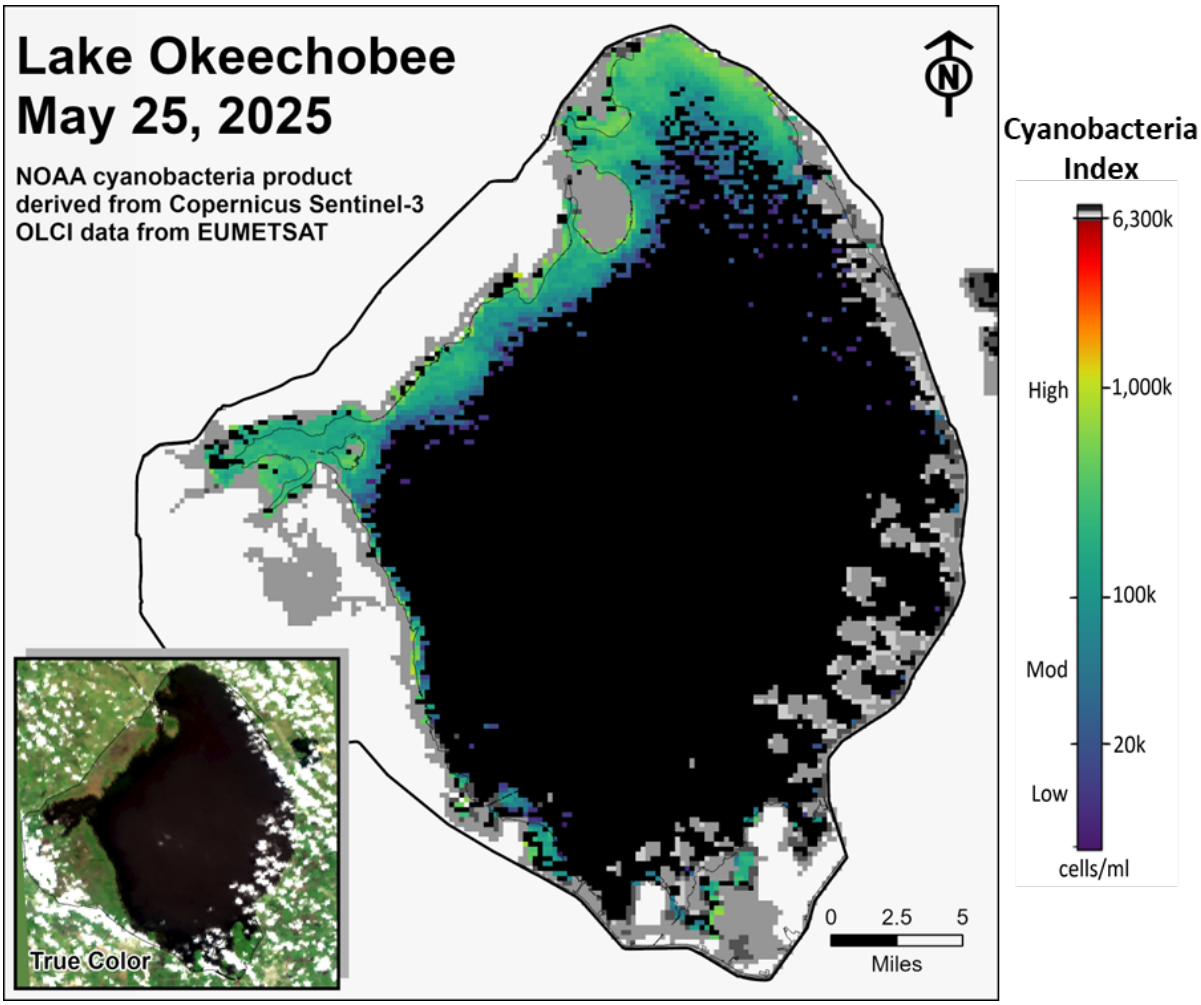

Figure LO-6. Cyanobacteria bloom index level on Lake Okeechobee, based on NOAA's harmful algal bloom monitoring system. Gray color indicates cloud cover. *Provisional NOAA image, subject to change*.

Estuaries

St. Lucie Estuary

Over the past week, mean total inflow to the St. Lucie Estuary was 170 cfs (**Figures ES-1** and **ES-2**), and the previous 30-day mean inflow was 320 cfs. For comparison, the historical provisional mean inflows from contributing areas are shown in **Figure ES-2**.

Over the past week, salinities increased at all sites in the estuary (**Table ES-1** and **Figure ES-3**). The seven-day moving average of the surface and bottom salinities at the US1 Bridge was 23.6. Salinity conditions in the middle estuary were estimated to be within the optimal range for adult eastern oysters (**Figure ES-4**). The mean larval oyster recruitment rate reported by the Fish and Wildlife Research Institute (FWRI) for May was 0.1 spat/shell at Rio, indicating that spawning activity likely began in late April (**Figure ES-5**).

Caloosahatchee River Estuary

Over the past week, mean total inflow to the Caloosahatchee River Estuary was 710 cfs (**Figures ES-6** and **ES-7**), and the previous 30-day mean inflow was 690 cfs. For comparison, the historical provisional mean inflows from the contributing areas are shown in **Figure ES-7**.

Over the past week, surface salinities decreased at Val I75, increased at S-79, and increased slightly at the remaining sites within the estuary (**Table ES-2** and **Figures ES-8** and **ES-9**). The seven-day mean salinities (**Table ES-2**) were in the optimal range (0-10) for tape grass at S-79 and Val I-75, and greater than the optimal range (>10) at Ft. Myers. The seven-day mean salinity values were within the optimal range for adult eastern oysters at Cape Coral and in the upper stressed range at Shell Point and Sanibel (**Figure ES-10**). The mean larval oyster recruitment rates reported by the FWRI in May were 3.1 spat/shell at Cove and was 4.7 spat/shell at Bird Island, indicating that spawning is occurring at both stations in the CRE (**Figures ES-11 and ES-12**).

Surface salinity at Val I-75 was forecast for the next two weeks using an autoregression model (Qiu and Wan, 2013[1]) coupled with a linear reservoir model for the tidal basin. Model scenarios included pulse releases at S-79 ranging from 450 to 1,200 cfs, with estimated tidal basin inflows of 240 cfs. Model results from all scenarios predict daily salinity to be 5.0 or lower and the 30-day moving average surface salinity to be 4.4 or lower at Val I-75 at the end of the two-week period (**Table ES-3** and **Figure ES-13**). This keeps predicted salinities in the upper estuary within the optimal salinity range (0-10) for tape grass.

[1] Qui, C., and Y. Wan. 2013. Time series modeling and prediction of salinity in the Caloosahatchee River Estuary. *Water Resources Research* 49:5804-5816.

Red Tide

The FWRI reported on May 23, 2025, that *Karenia brevis*, the Florida red tide dinoflagellate, was not observed at bloom concentrations in any samples collected within the District region.

Water Management Recommendations

Lake stage is in Zone D. Current climatological and hydrological conditions are normal. The LOSOM release guidance suggests up to 2,100 cfs release at S-79 to the Caloosahatchee River Estuary and up to 1,400 cfs total to S-80, S-97, S-49, and Gordy Road combined to the St. Lucie Estuary.

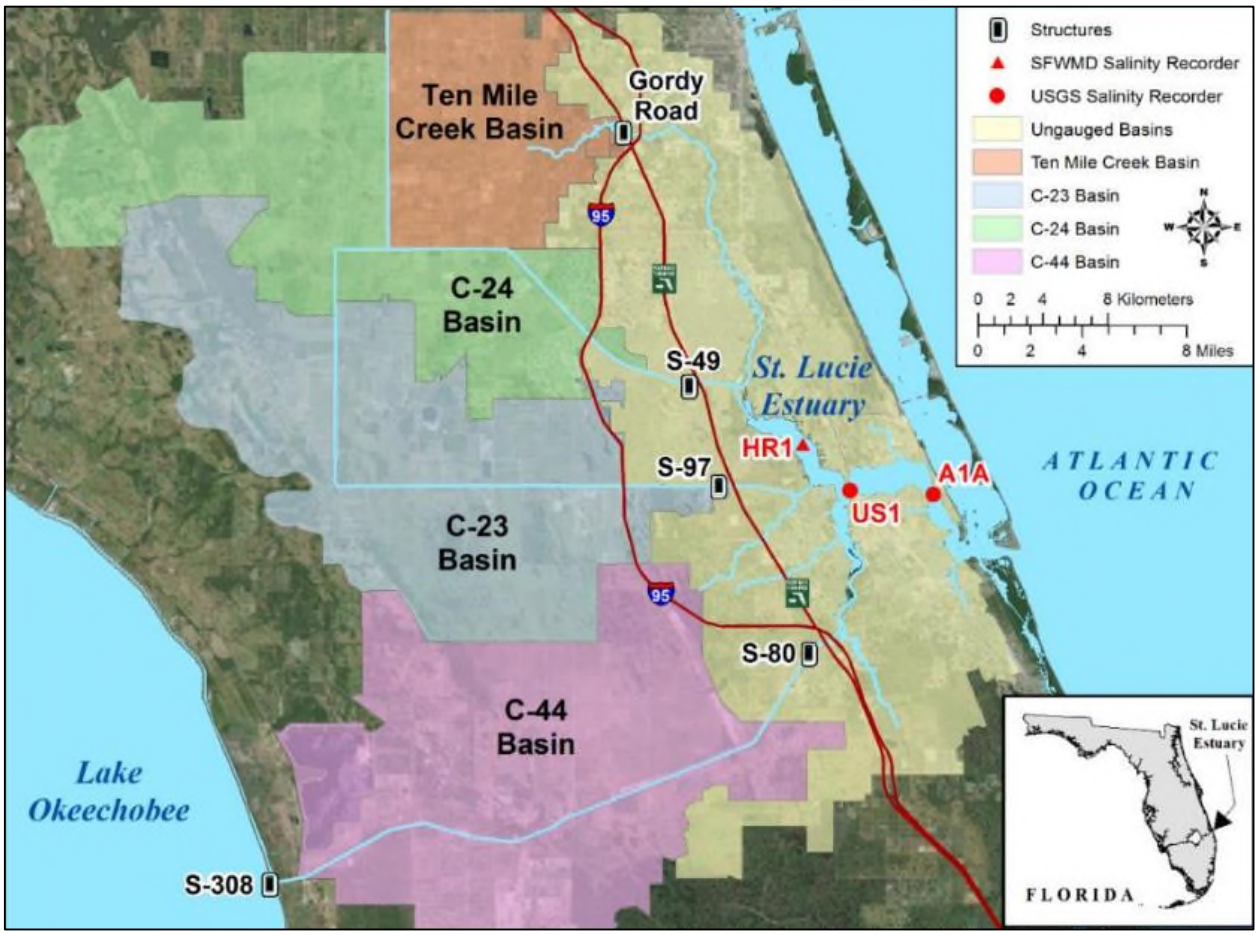

Figure ES-1. Basins, water control structures and salinity monitoring sites in the St. Lucie Estuary.

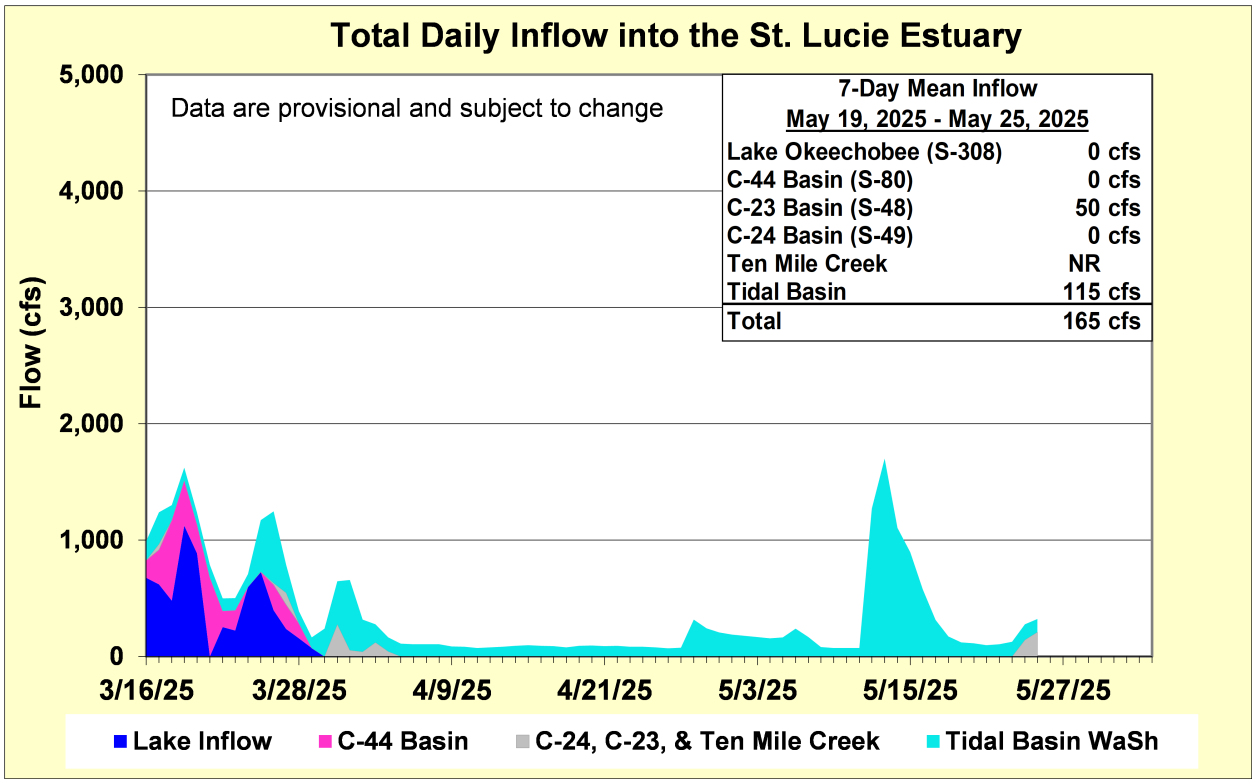

Figure ES-2. Total daily inflows from Lake Okeechobee and runoff from the C-44, C-23, C-24, Ten Mile Creek, and Tidal Basins into the St. Lucie Estuary.

Table ES-1. Seven-day mean salinity at oyster monitoring sites in the St. Lucie Estuary. Current means are in bold font; previous week's means are in parentheses. The envelope reflects the optimum salinity range for adult eastern oysters (*Crassostrea virginica*) in the estuary. Data are provisional.

Sampling Site	Surface	Bottom	Optimum Envelope
HR1 (North Fork)	**17.4** (15.2)	**21.5** (21.0)	10.0 – 25.0
US1 Bridge	**23.3** (22.3)	**24.0** (23.0)	10.0 – 25.0
A1A Bridge	**29.9** (28.6)	**30.7** (29.9)	10.0 – 25.0

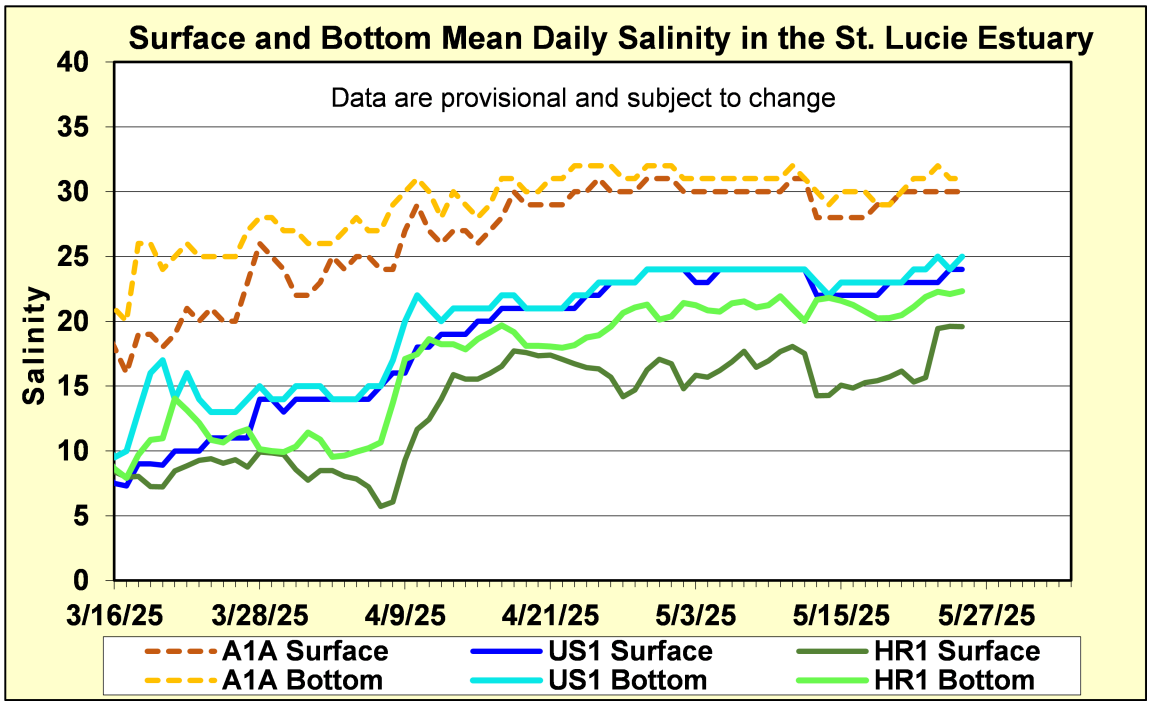

Figure ES-3. Mean daily salinity at the A1A, US1, and HR1 sites in the St. Lucie Estuary.

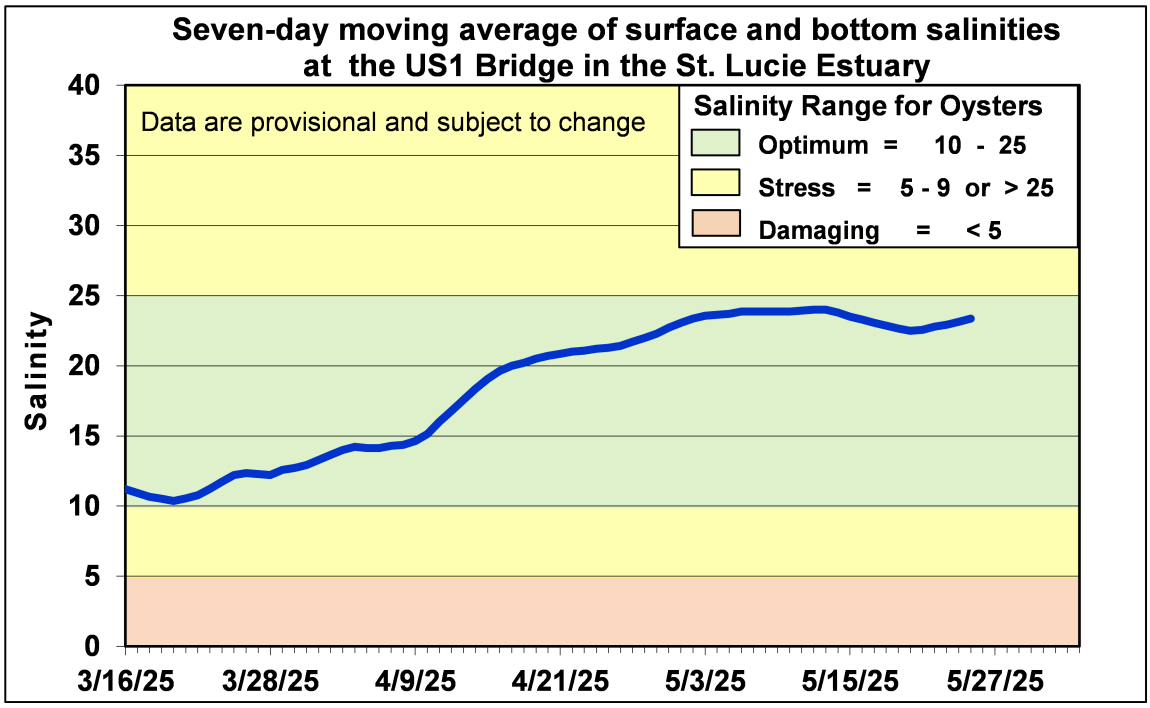

Figure ES-4. Seven-day moving average of the surface and bottom salinities at the US1 Bridge in the St. Lucie Estuary.

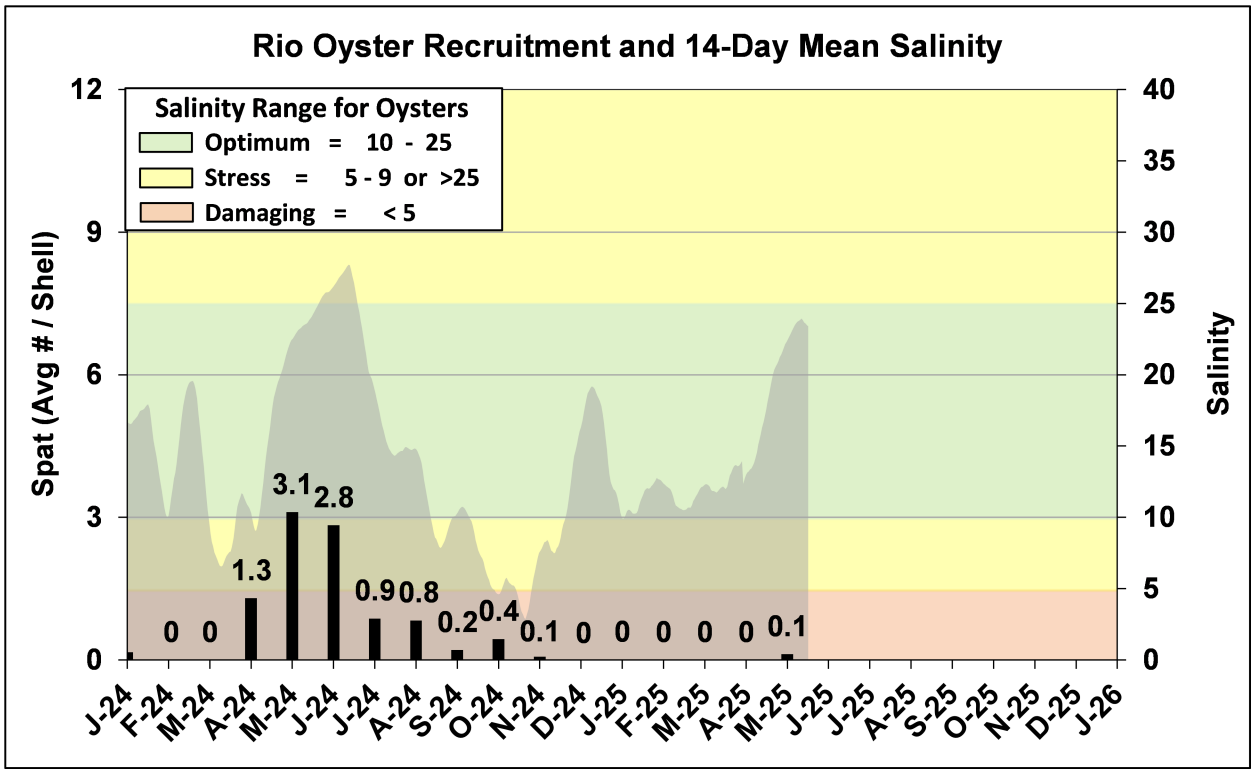

Figure ES-5. Mean oyster recruitment at the Rio oyster monitoring station and 14-day mean salinity at US1 Bridge.

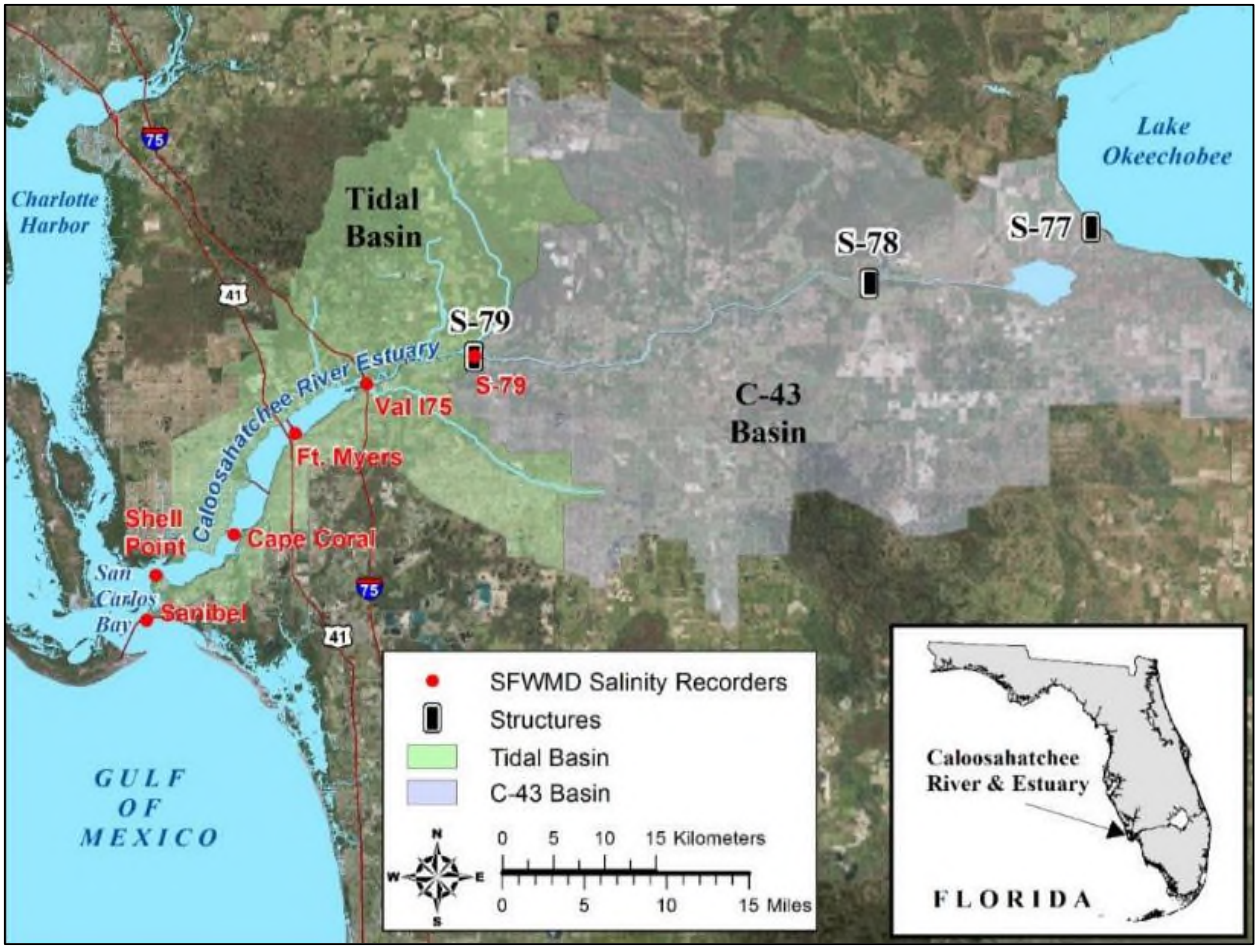

Figure ES-6. Basins, water control structures, and salinity monitoring sites in the Caloosahatchee River Estuary.

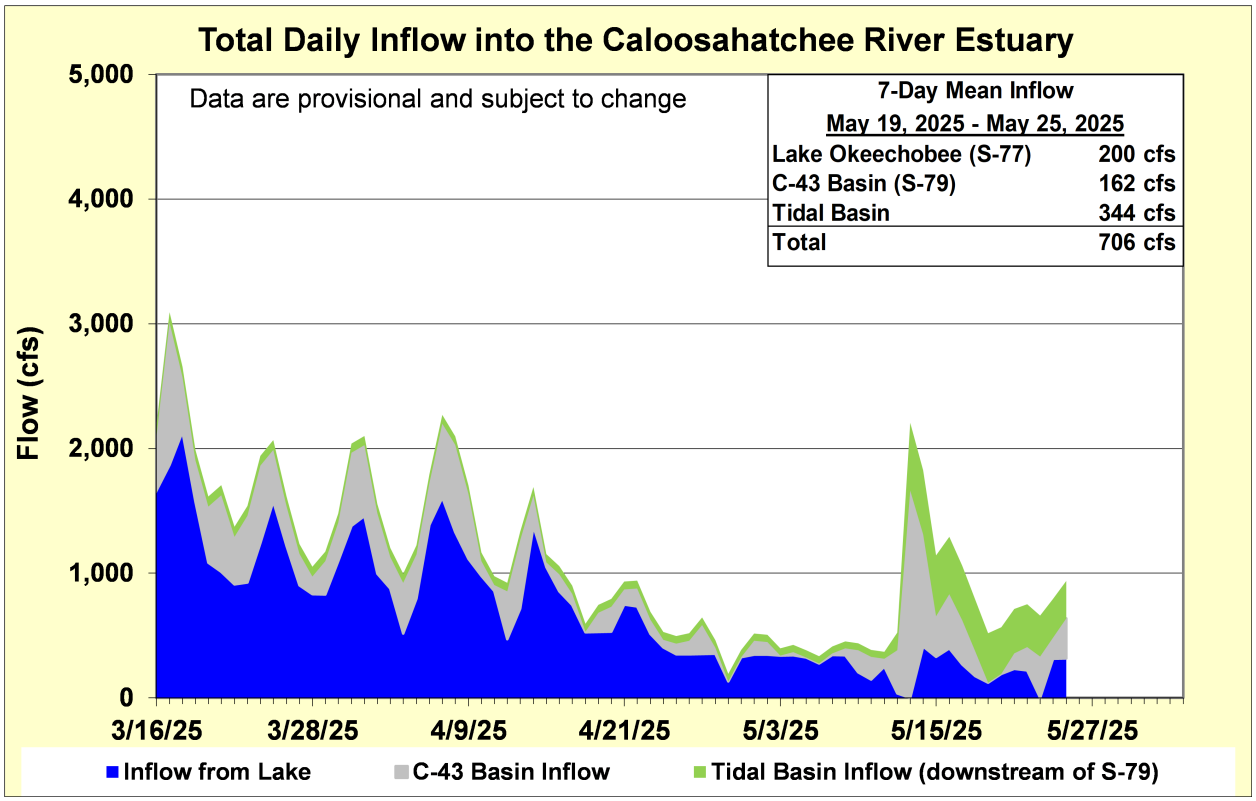

Figure ES-7. Total daily inflows from Lake Okeechobee, and runoff from the C-43 and Tidal basins into the Caloosahatchee River Estuary.

Table ES-2. Seven-day mean salinity at six monitoring sites in the Caloosahatchee River Estuary. Current means are in bold font; previous week's means are in parentheses. The envelope in the upper estuary sites is for the protection of tape grass and the envelope in the lower estuary is the optimum salinity range for adult eastern oysters (*Crassostrea virginica*). Data are provisional.

Sampling Site	Surface	Bottom	Optimum Envelope
S-79 (Franklin Lock)	**2.3** (1.6)	**2.1** (1.6)	0.0 – 10.0
Val I-75	**2.9** (3.3)	**4.4** (3.8)	0.0 – 10.0
Fort Myers Yacht Basin	**11.7** (11.5)	**12.4** (13.3)	0.0 – 10.0
Cape Coral	**20.0** (19.3)	**21.1** (20.6)	10.0 – 25.0
Shell Point	**31.6** (31.4)	**31.6** (31.4)	10.0 – 25.0
Sanibel	**34.4** (34.3)	**34.8** (34.8)	10.0 – 25.0

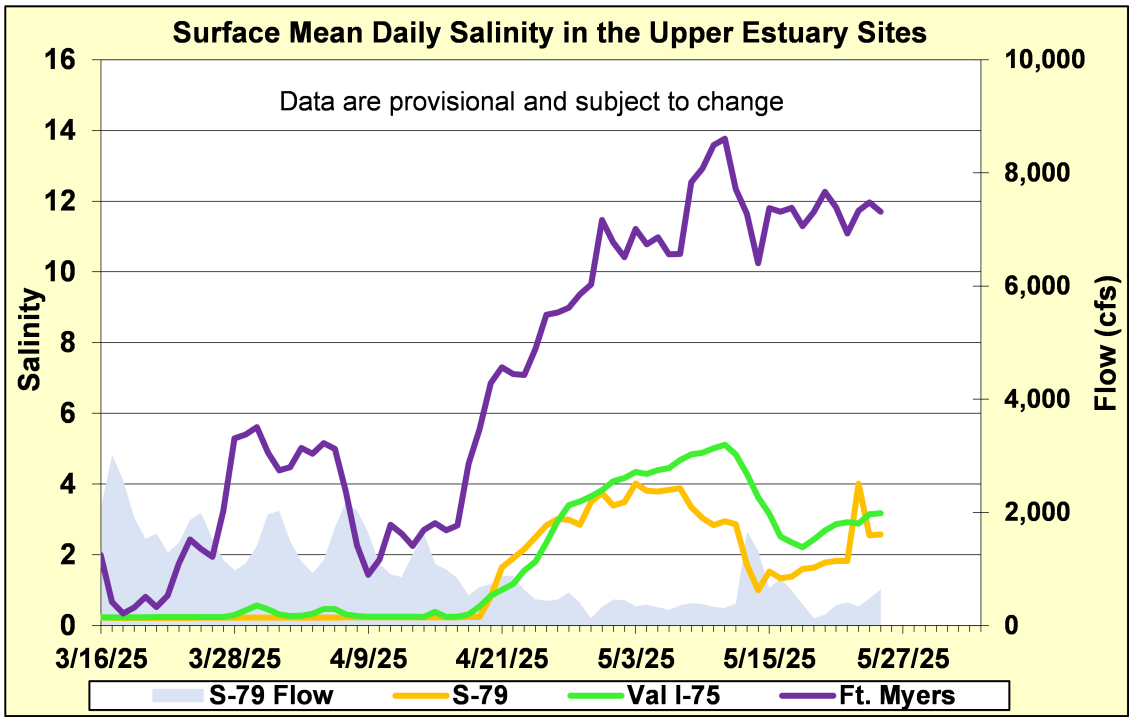

Figure ES-8. Mean daily salinity at upper Caloosahatchee River Estuary monitoring sites and mean daily flow at S-79.

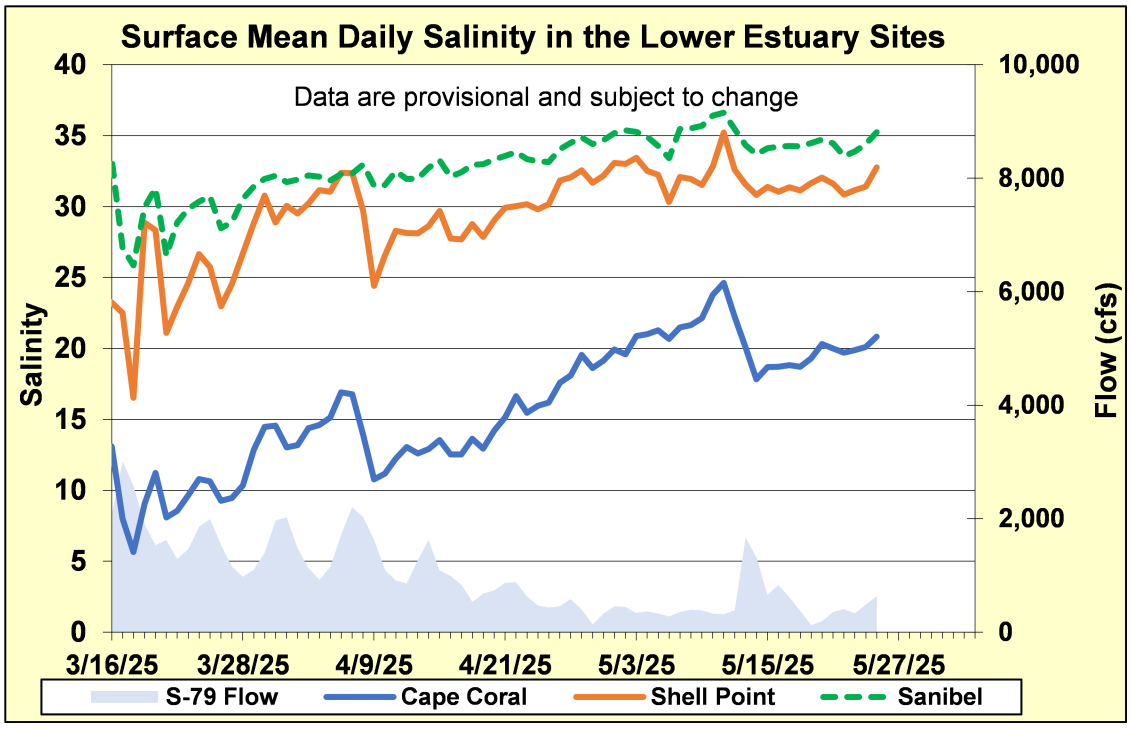

Figure ES-9. Mean daily surface salinity at lower Caloosahatchee River Estuary monitoring sites and mean daily flow at S-79.

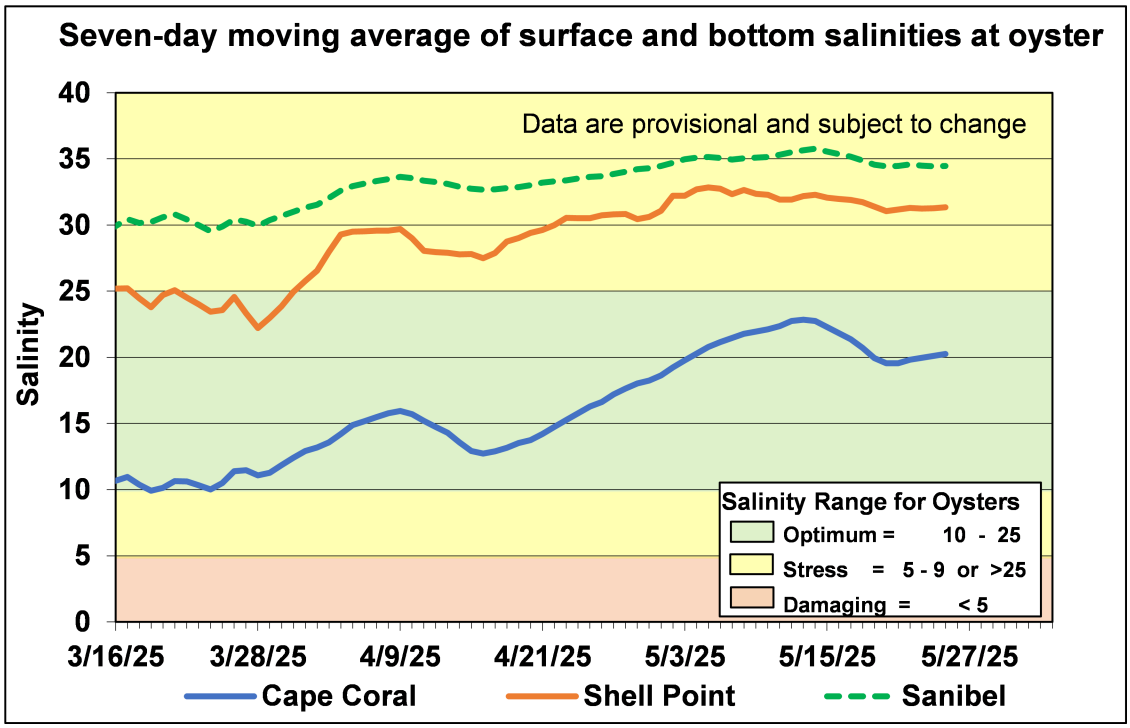

Figure ES-10. Seven-day moving average of surface and bottom salinities at Cape Coral, Shell Point, and Sanibel monitoring sites in the Caloosahatchee River Estuary.

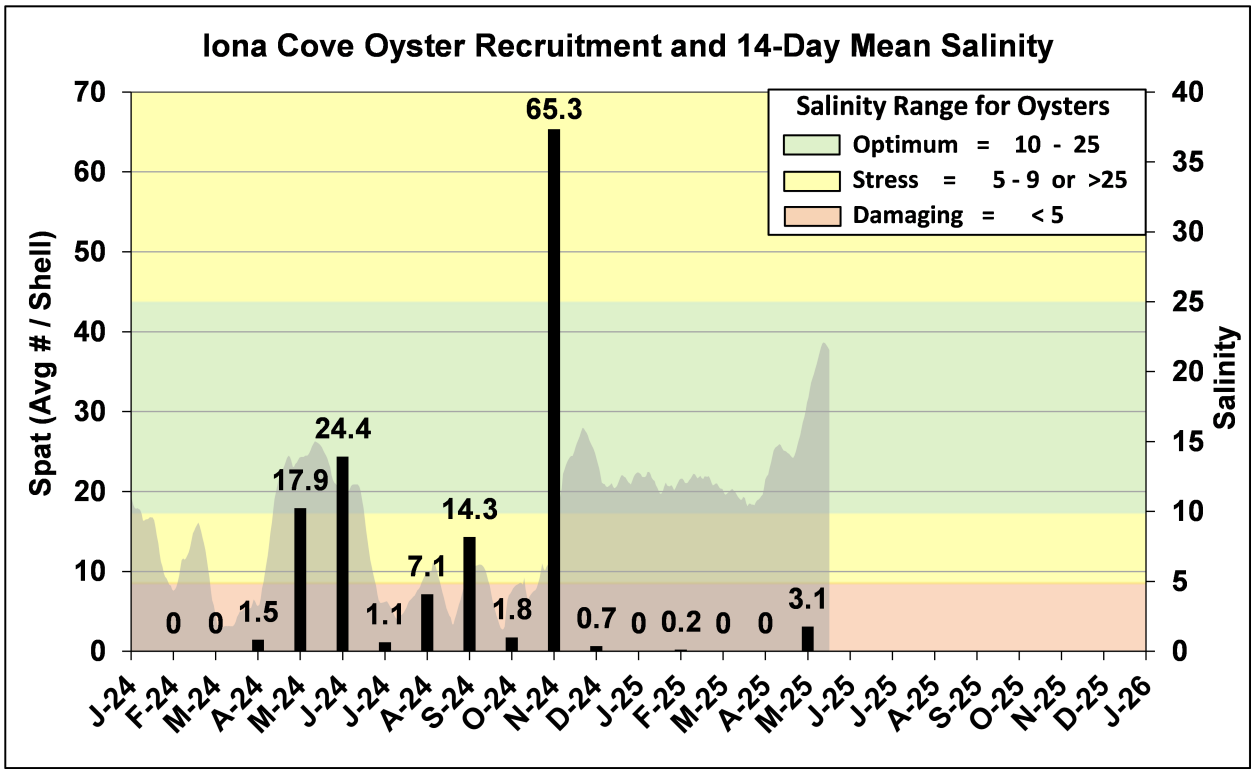

Figure ES-11. Mean oyster recruitment at the Iona Cove oyster monitoring station and 14-day mean salinity at Cape Coral.

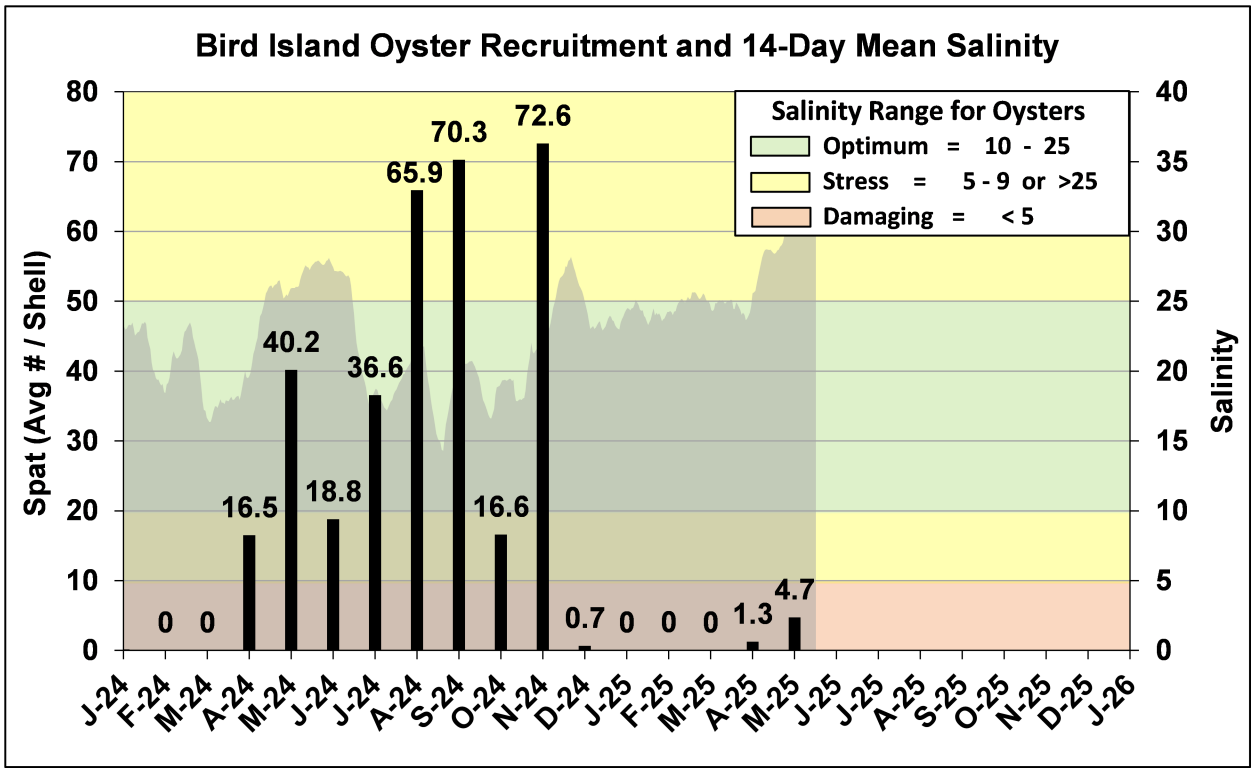

Figure ES-12. Mean oyster recruitment at the Bird Island oyster monitoring station and 14-day mean salinity at Shell Point.

Table ES-3. Predicted salinity at Val I-75 in the Caloosahatchee River Estuary at the end of the forecast period for various S-79 flow release scenarios.

Scenario	Simulated S-79 Flow (cfs)	Tidal Basin Runoff (cfs)	Daily Salinity	30-Day Mean Salinity
A	450	239	5.0	4.4
B	650	239	4.0	4.2
C	750	239	3.5	4.1
D	1000	239	2.8	3.7
E	1200	239	2.1	3.6

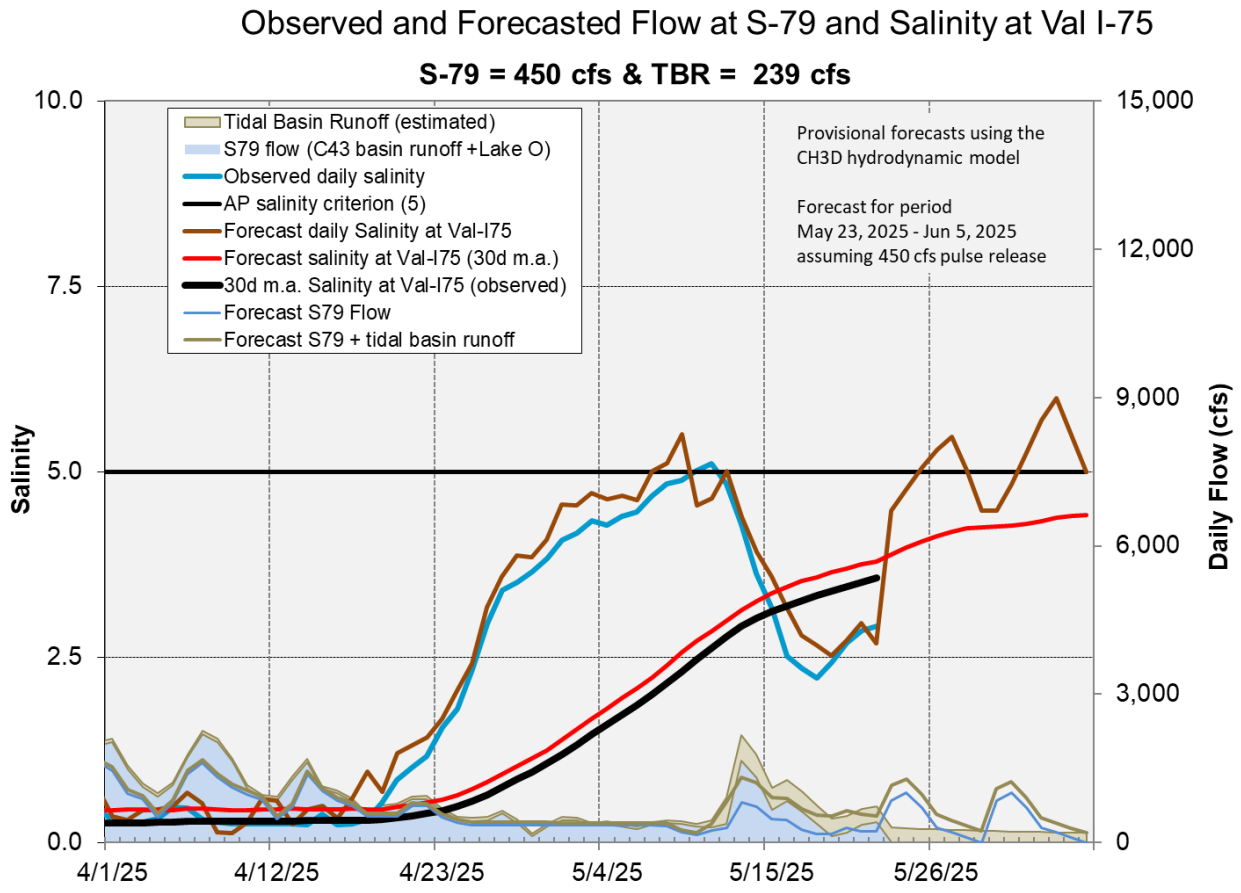

Figure ES-13. Surface salinity forecast at the Val I-75 site assuming a 450 cfs pulse release at S-79.

Stormwater Treatment Areas

STA-1E: STA-1E Central Flow-way is offline for construction activities. An operational restriction is in place in the Western Flow-way for post-construction vegetation grow-in. Online treatment cells are near target stage. The 365-day PLR for the Western Flow-way is below 1.0 g/m^2/year (**Figure S-2**).

STA-1W: The Eastern Flow-way and Cell 6 contain nests of Migratory Bird Treaty Act protected species. Treatment cells are near target stage. Vegetation in the Western and Eastern flow-ways is highly stressed. The 365-day PLRs for the Eastern, Western and Northern Flow-ways are high (**Figure S-2**).

STA-2: STA-2 Flow-way 3 is offline for post-drawdown vegetation grow-in, and contains nests of Migratory Bird Treaty Act protected species. Operational restrictions are in place in Flow-ways 2 and 4 for vegetation management activities. An additional restriction is in place for inflow canal dredging in Flow-way 1. Online treatment cells are near target stage. Vegetation in Flow-ways 2 is stressed, and in 5 is highly stressed. The 365-day PLRs for Flow-ways 1, 4, and 5 are below 1.0 g/m^2/year. The 365-day PLR for Flow-way 2 is high (**Figure S-3).**

STA-3/4: An operational restriction is in place in the Eastern Flow-way for post-drawdown vegetation grow-in. Treatment cells are near or above target stage. Vegetation in the Central Flow-way is highly stressed. The 365-day PLR for the Eastern Flow-way is below 1.0 g/m^2/year. The 365-day PLRs for the Central and Western Flow-ways are high (**Figure S-3**).

STA-5/6: Treatment cells are near or below target stage. All treatment cells have highly stressed or stressed vegetation conditions. The 365-day PLRs for Flow-ways 1, 2, 6, 7, and 8 are below 1.0 g/m^2/year, and the 365-day PLRs for Flow-ways 3, 4, and 5 are high. (**Figure S-4**).

For definitions on STA operational language see glossary following figures

Everglades Stormwater Treatment Areas - STAs

- Total WY2026 inflows to STAs (5/1/2025 to 5/25/2025): ~30,000 ac-ft
- Lake Okeechobee releases to FEBs/STAs
  - 5/19/2025 to 5/25/2025: ~3,300 ac-ft
  - WY2026: ~17,900 ac-ft
- Extensive vegetation management activities underway to address stressed and highly stressed vegetation in EAV cells
- Most treatment cells are near or above target water depth except STA-5/6 EAV cells which are below target

Estimated Inflow and Outflow Volumes
May 19 – May 25, 2025 *Includes preliminary data*

	Total Inflow (acre-feet)	Total Outflow (acre-feet)
STA-1E	3,500	2,600
STA-1W	2,400	0
STA-2	900	1,200
STA-3/4	100	400
STA-5/6	0	0

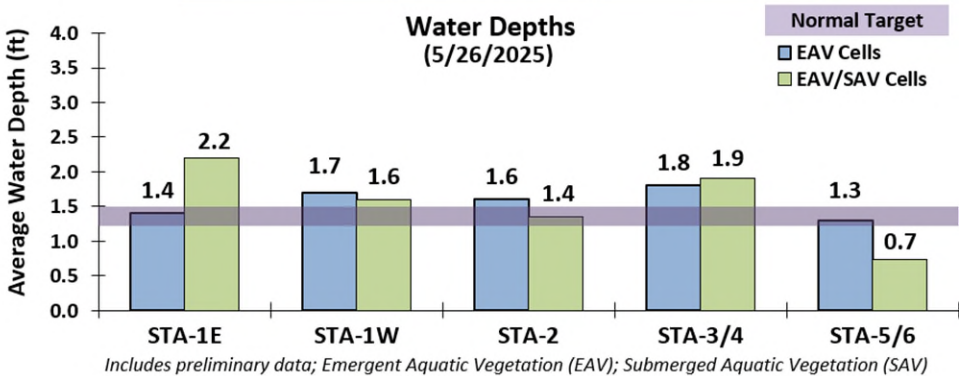

Figure S-1. STA depths and flow volumes

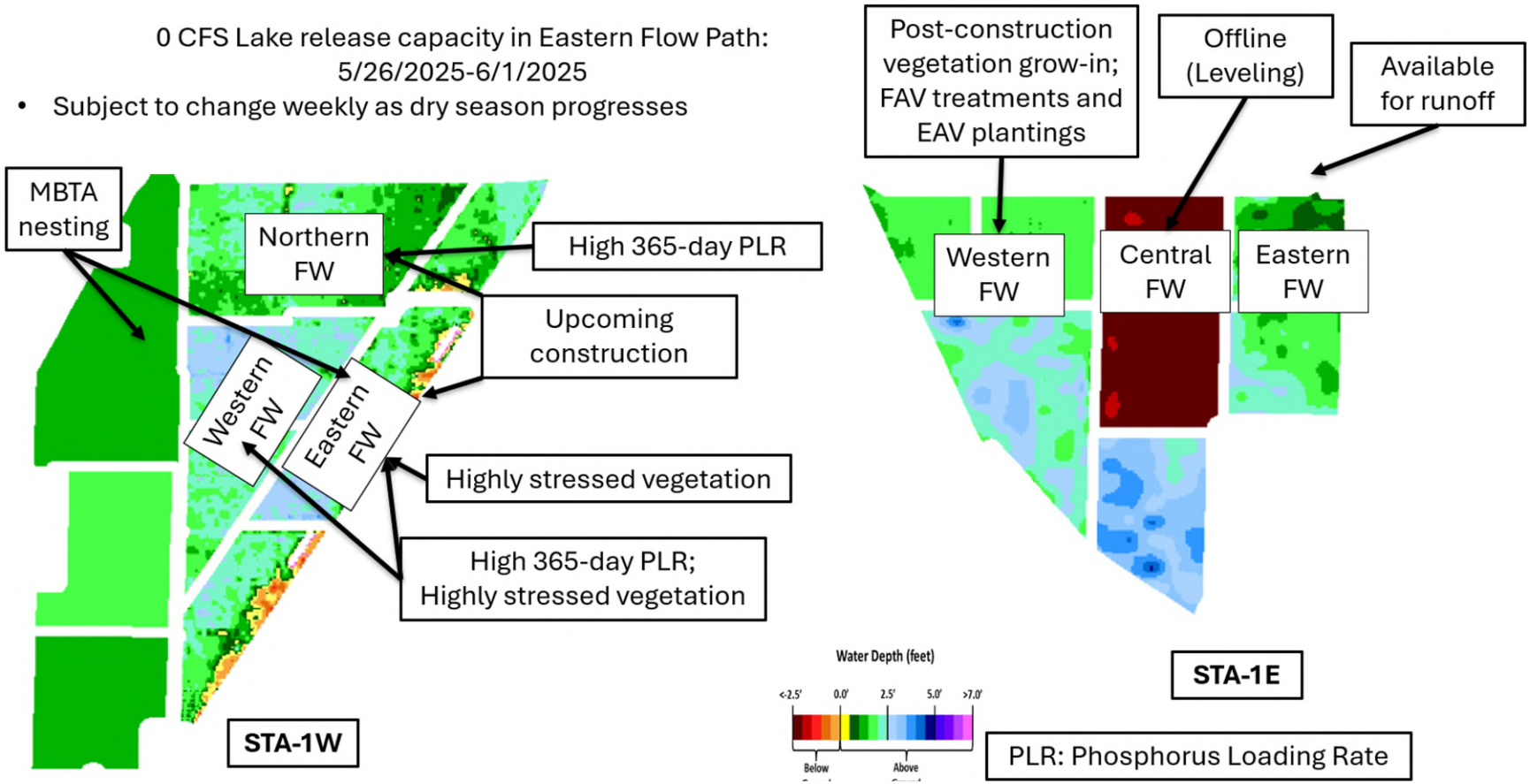

Figure S-2. Eastern Flow Path Weekly Status Report

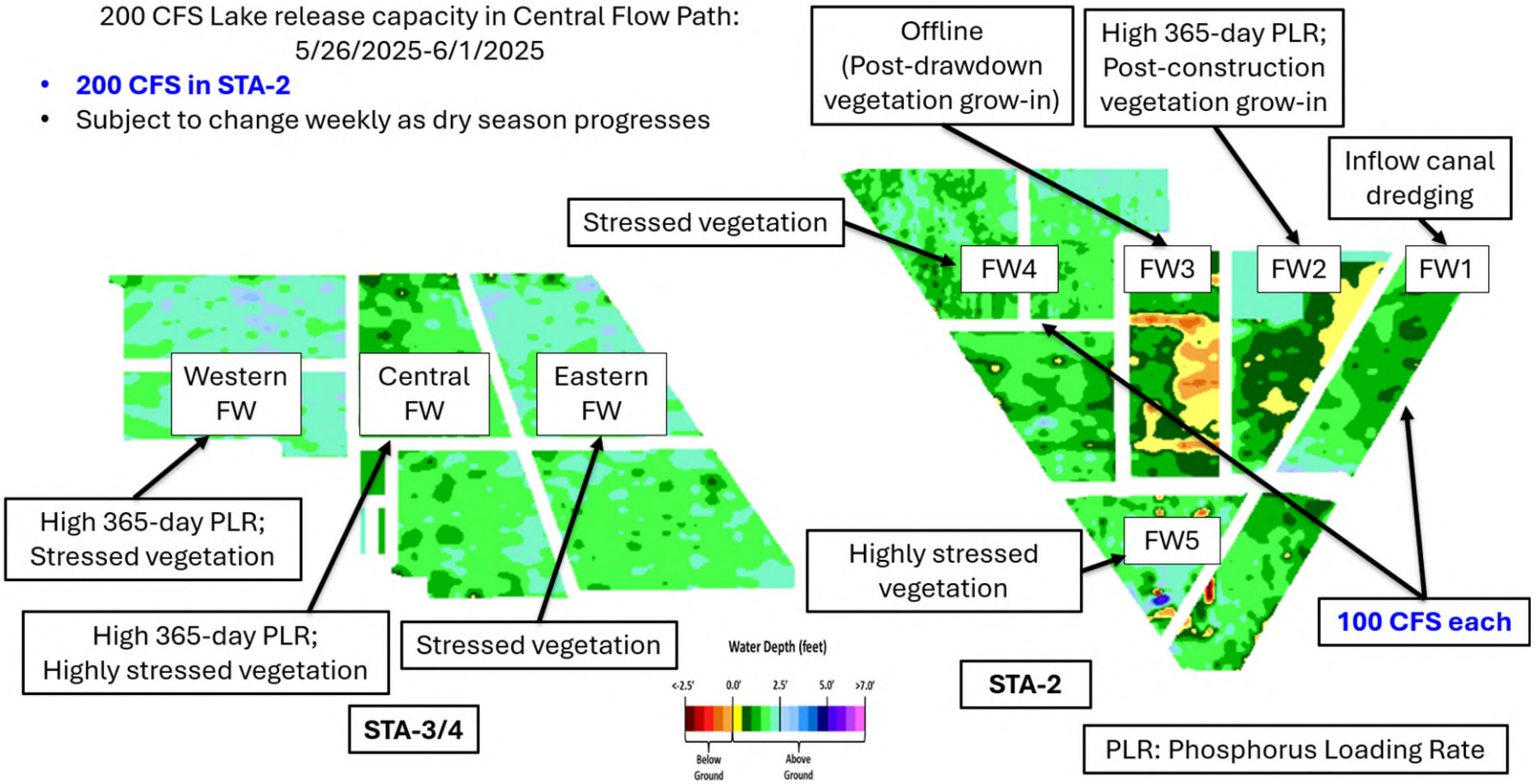

Figure S-3. Central Flow Path Weekly Status Report

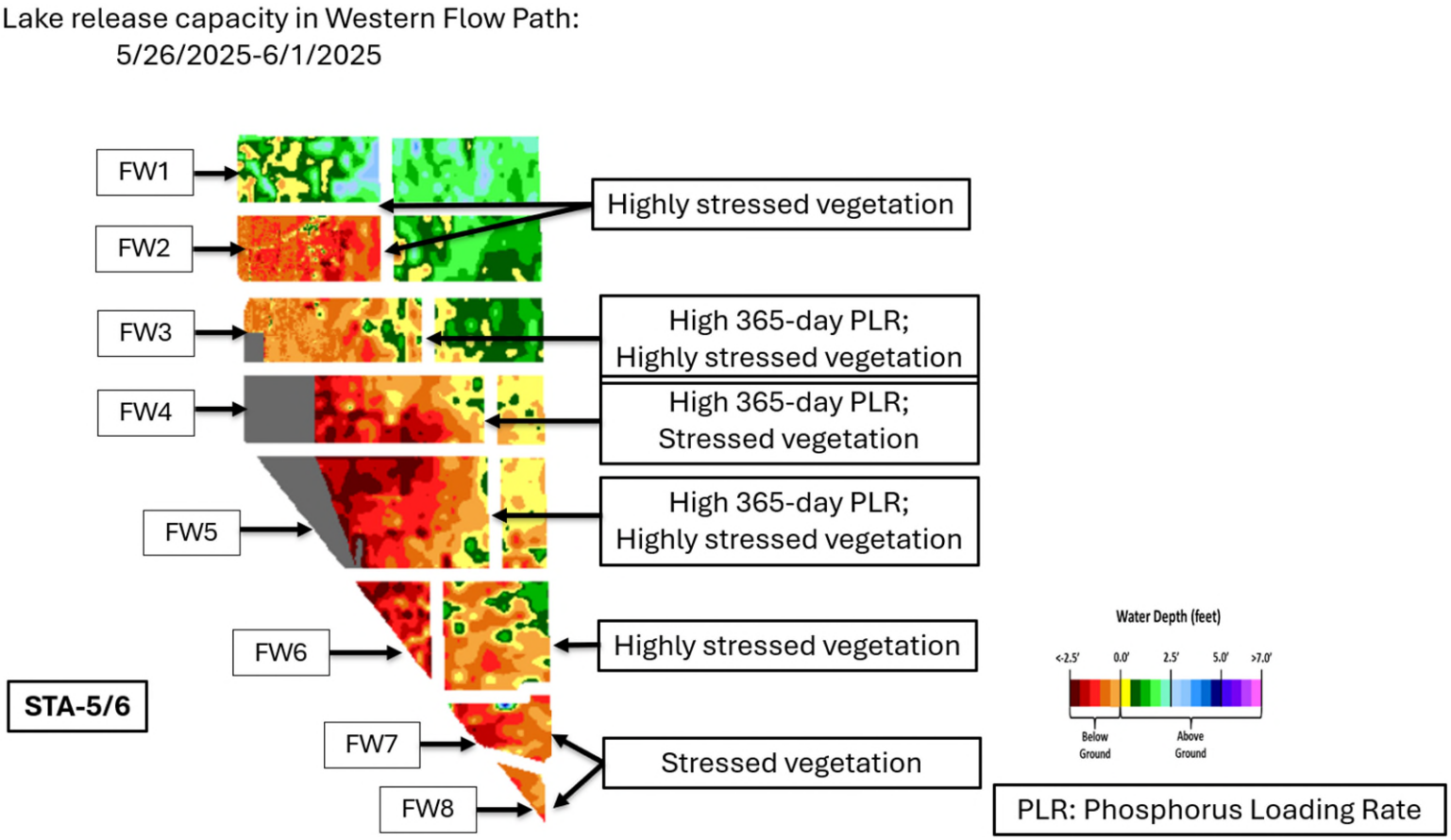

Figure S-4. Western Flow Path Weekly Status Report

Basic Concepts and Definitions for STA Weekly Status Report

- **Inflow**: Sum of flow volume at all inflow structures to an STA.
- **Lake Inflow**: Portion of the STA total inflow volume that originates from Lake Okeechobee.
- **Outflow**: Sum of flow volume at outflow structures from an STA.
- **Total Phosphorus** (TP): Total mass of phosphorus in all its forms; including particulate, dissolved, etc.
- **Inflow Concentration**: TP concentration is the mass of TP in micrograms per liter of water, µg/L or ppb. Inflow concentration refers to the flow-weighted mean TP from all inflow structures over a period of time.
- **Outflow Concentration**: The flow-weighted mean TP from all outflow structures over a period of time. The outflow concentration represents the reduction of inflow TP achieved by STA treatment of the inflow water.
- **WQBEL**: The STA outflow concentration that is required upon completion of the Restoration Strategies projects by December 2025. The outflow concentration shall not exceed 13 ppb as an annual flow weighted mean in more than 3 out of 5 water years on a rolling basis and shall not exceed 19 ppb as an annual flow weighted in any water year.
- **Flow-Way** (FW): One or more treatment cells connected in series. Cells typically have emergent aquatic vegetation (EAV) in the front portion of the flow-way followed by a mix of EAV and submerged aquatic vegetation (SAV)
- **Vegetation Status**: Healthy means the vegetation condition is good and will allow the STA to perform as designed. Stressed means the vegetation is showing signs of poor health, such as browning or areas of vegetation die-off, or the cell contains undesirable vegetation such as floating exotic vegetation requiring treatment. The TP reduction capability of the STA is affected when the vegetation condition is poor.
- **Phosphorus Loading Rate** (PLR): Mass of inflow TP in grams, divided by total treatment area of STA in square meters, per year. In general, a 365-day value of less than 1.0 is needed for an STA to perform optimally. A PLR of 2.0 is considered very high and a PLR of 3.0 is considered extremely high. The TP reduction capability of the STA is affected when the PLR is high, very high and extremely high.
- **Online**: Online status means the FW can receive and treat inflow.
- **Online with Restriction**: The FW can receive and treat inflow, but the amount of flow or water level may be limited temporarily. For example, a vegetation rehabilitation effort may require reduced flows through an area while the new plants are establishing, or nesting by protected species may require a certain water level not to be exceeded.
- **Offline**: The FW is unable to receive and treat inflow due to repairs, construction, or other prohibitive reasons.
- **Depth**: Difference between the average surface water level in a cell and the average ground elevation in that cell. Target depths, or depths between flow events, are between 1.25 ft to 1.5 ft. As depth approaches or drops below zero, an increasing percentage of the cell is considered dry and STA conditions deteriorate. An increase in depth above target depth is expected with increasing flow. However, as depth increases much above the target depth and is sustained over a period of time, it can be detrimental to vegetation health and overall STA treatment performance.
- **Note**: The data provided in this summary report were developed using a combination of provisional and quality-assured flow and water quality data. In some cases, best professional judgment was used to estimate missing data and revise questionable data. Values provided are not considered final but are appropriate for use in STA operational decision-making.

Everglades

Water Conservation Area

Regulation Schedules

Rainfall in South Florida was slightly above average throughout the middle to end of the week. WCA-1: Stage at the 1-8C gauge on Sunday, May 26, 2025 showed a slight decline and is now below the A1 zone regulation line by 0.23 feet. WCA-2A: S11B stage rose last week but remained below the water supply line, on Sunday stage was 0.73 feet below that line. WCA-3A: The 3 Gauge Average remains well below the Zone A regulation line. Stages were below that line by 0.96 feet on Sunday. WCA-3A North: Stage at Gauge 62 (NW corner) continues to rise quickly but remains below the Upper Schedule regulation line; on Sunday, stage was 0.7 feet below that line. See figures **EV-1** through **EV-4**.

Water Depths

The SFWDAT model output for May 25, 2025, illustrates that dry conditions remain in WCA-1 and WCA-2, with some recovery of depths to nearer ground surface in WCA-3A North and in Big Cypress National Preserve (BCNP). Wading bird foraging may have been extended in WCA-3A South with recent rainfall. Some hydrologic connectivity was restored within the sloughs of Everglades National Park (ENP), with Shark River and Taylor Slough now showing potential for above ground stages. Above average depth conditions are observed in northwestern WCA-3A and return to North East Shark River Slough (NESRS). Depths remain below average in BCNP but did move closer to ground surface last week. See figures **EV-5** through **EV-6**.

Taylor Slough and Florida Bay

All stages decreased across Taylor Slough over the past week, with an average decrease of 0.12 feet. Changes ranged from −0.21 feet at E112 to −0.04 feet at Taylor Slough Bridge (TSB), both in the northern slough (**Figure EV-7 and Figure EV-8**). Taylor Slough water levels remain above the recent average (WY1993-2016) for this time of year by 4.9 inches compared to before the Florida Bay initiative (starting in 2017), a decrease of 3.3 inches relative to last week's comparison. The Craighead Pond (CP) and TSB stages remain below the estimated average for 1900 by 0.39 and 0.98 feet, respectively.

Average Florida Bay salinity was 37.9, an increase of 1.6 from last week. Salinity changes ranged from −0.4 at Duck Key (DK) in the eastern region to +4.1 at Garfield Bight (GB) in the western nearshore region (**Figure EV-7**). Salinity is above the estimated average for 1900 and within the WY2001-2016 Interquartile Range (IQR) for all three regions (**Figure EV-9**). Average Florida Bay salinity is now above its recent average (WY1993-2016) for this time of year by 1.1, an increase of 1.5 relative to last week's comparison.

Salinity at the Taylor River (TR) station in the mangrove zone (tracked for the Florida Bay MFL) was 32.0. The 30-day moving average was 28.0 (**Figure EV-10**), an increase of 3.8 from last week. A Minimum Flows and Levels (MFL) exceedance will occur if TR salinity remains above 30 for 30 consecutive days. The 365-day moving sum of flow from the five major creeks (McCormick Creek, Taylor River, Mud Creek, Trout Creek, West Highway

Creek) was 251,978 acre-feet, an increase of 1,507 acre-feet from last week (**Figure EV-10**).

Average rainfall across Taylor Slough and Florida Bay was approximately 0.27 inches over the past week, based on the 18 gauges used for this report. Rainfall ranged from 0.0 inches at five stations to 1.55 inches at Long Sound (LS) in the eastern nearshore region (**Figure EV-11**). Wind directions and speeds in Florida Bay ranged from 0.7 mph W on May 23rd to 17.8 mph E on May 25th (**Figure EV-11**).

Average daily flow from the five major creeks totaled −572 acre-feet, with net negative flows over the past week. Total daily creek flow ranged from −871 acre-feet on May 26th to −153 acre-feet on May 24th (**Figure EV-12**). Average daily flow was 3,490 acre-feet below estimated historical levels (circa 1900).

Implications for water management

Given the continued dry conditions, our focus is on conserving water in the WCA's. As the wet season begins to ramp up, we expect to see increases in water depths, and we advise maintaining recession rates that hold depths steady in southern 3A. Maintaining a hydroperiod supportive of wading bird nesting in WCA-3A is critical as wading birds have had below average nesting success for the last three years. Recent rainfall may have helped to extend suitable foraging in that region but the response of the wading birds to those recent reversals are unknown at this point. Therefore, we expect maintaining stable depths across this region as rainfall increases will provide the most suitable environment for late foraging to occur and older nestlings to fledge. Florida Bay salinity remains in a good position as the dry season progresses and will continue to benefit from maintaining freshwater input to the system when available. Maintaining hydroperiods by increasing inflow and minimizing outflow of WCA-3A can be beneficial to the success of wading bird nesting in the EPA. Conserving water in WCA-3A might be a concern if Florida Bay salinities are seen to rise rapidly and approach hypersalinity. The current favorable salinity levels in Florida Bay may provide an opportunity to deliver broader landscape-wide ecological benefits across the EPA while balancing ecological priorities. Individual regional recommendations can be found in **Table EV-2**.

Table EV-2. Previous week's rainfall and water depth changes in Everglades basins.

Everglades Region	Rainfall (inches)	Stage change (feet)
WCA-1	0.16	−0.15
WCA-2A	0.16	−0.02
WCA-2B	0.34	−0.13
WCA-3A	1.88	+0.12
WCA-3B	0.15	+0.18
ENP	0.40	−0.11

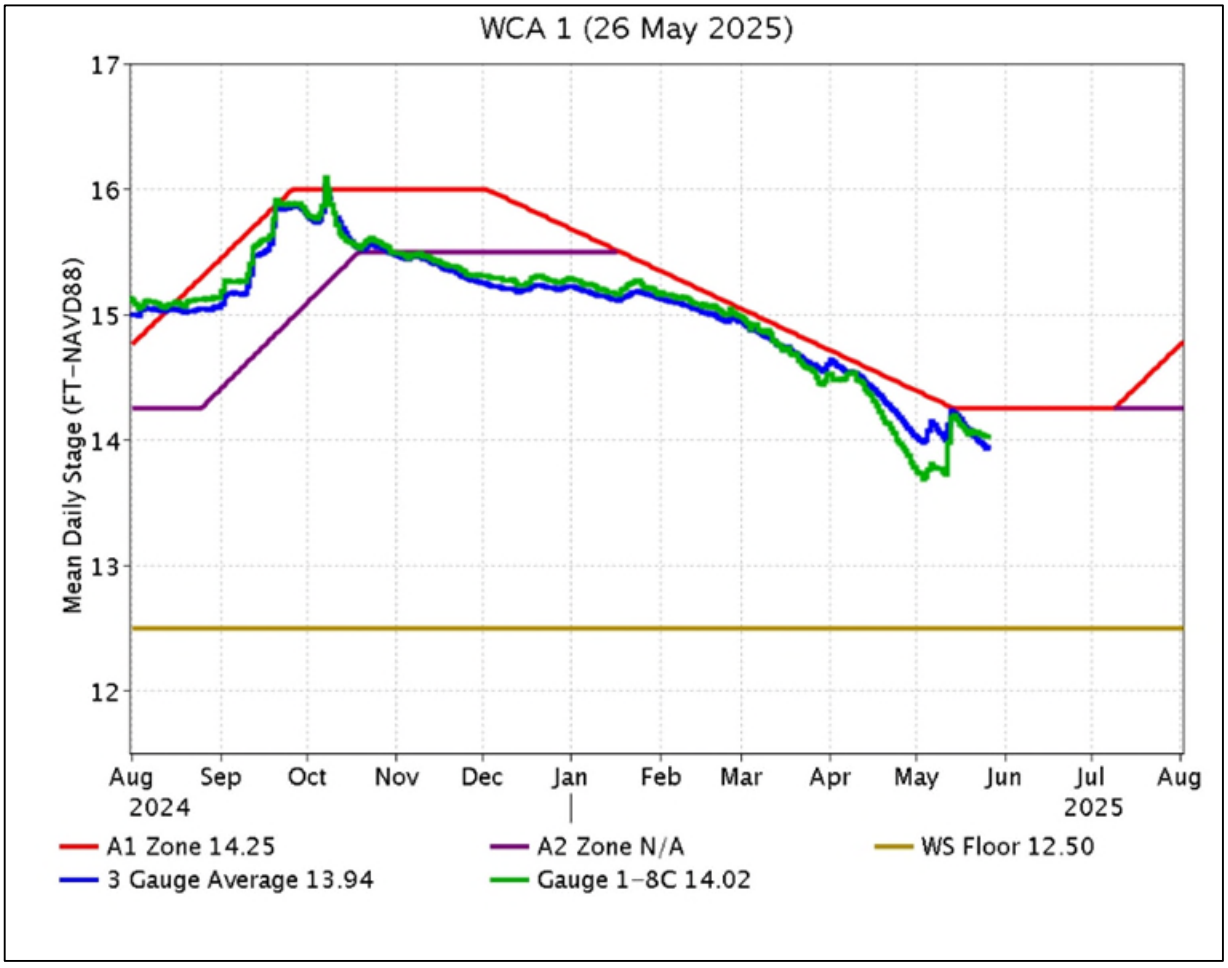

Figure EV-1. WCA-1 stage hydrographs and regulation schedule.

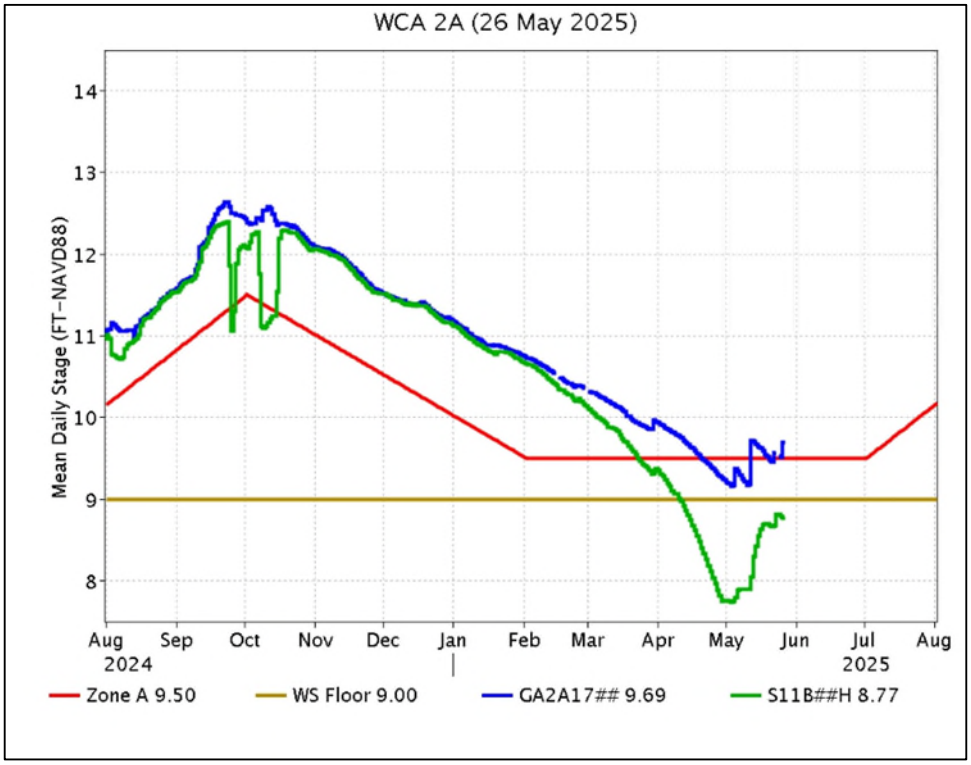

Figure EV-2. WCA-2A stage hydrographs and regulation schedule.

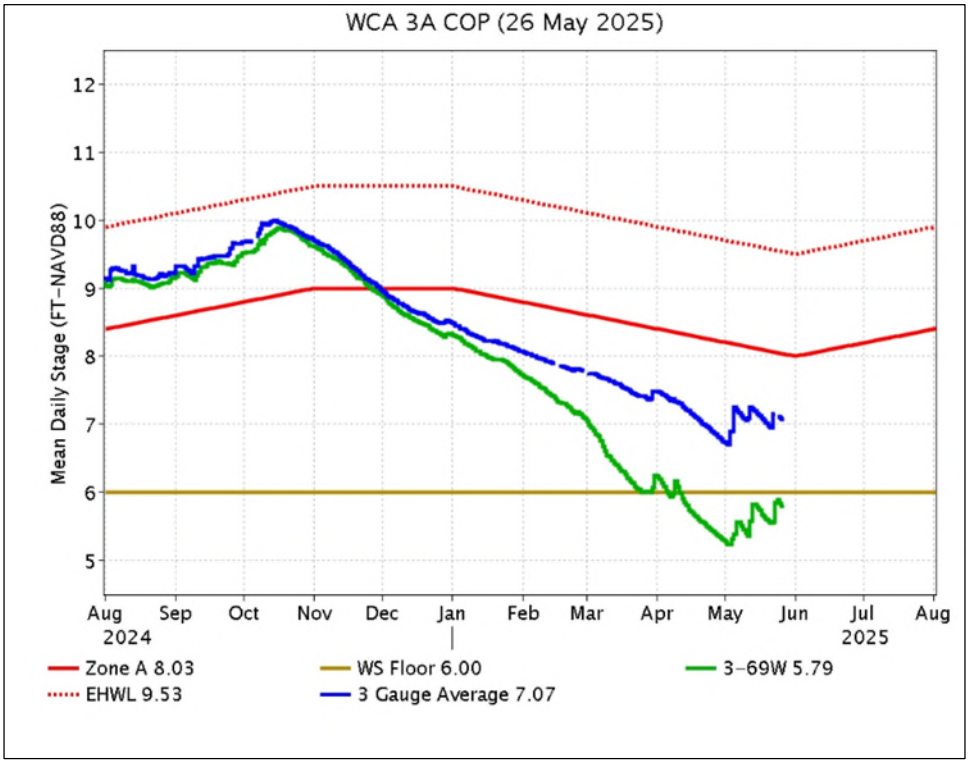

Figure EV-3. WCA-3A stage hydrographs (three-gauge average, 3-69W) and regulation schedule.

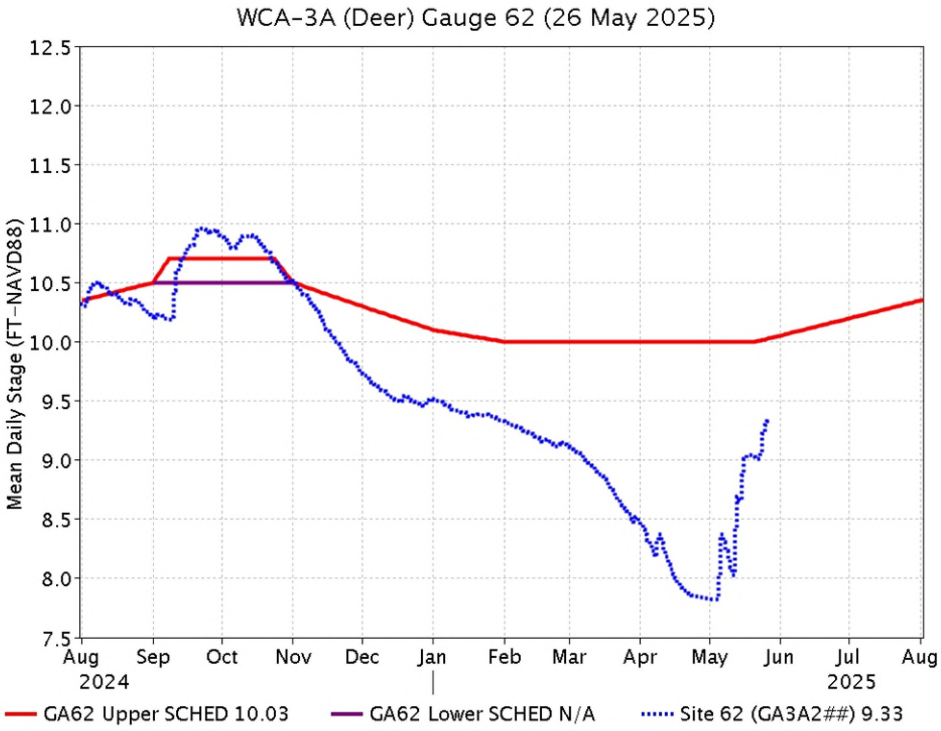

Figure EV-4. WCA-3A stage hydrograph (Deer gauge; Site 62) and GA62 regulation schedule.

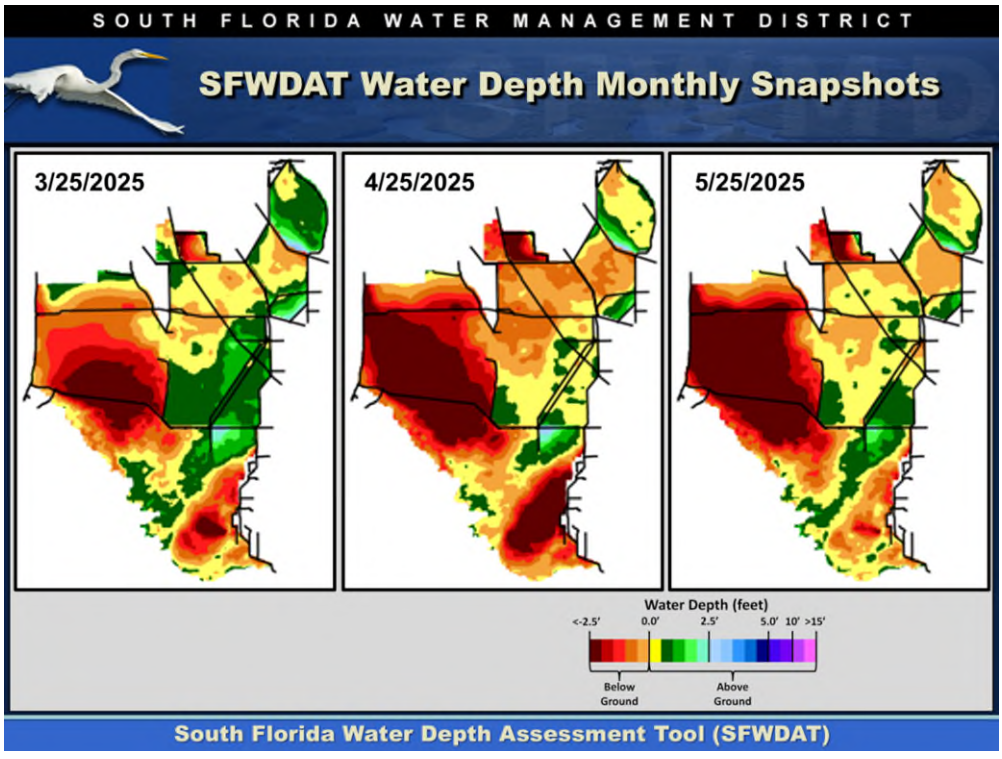

Figure EV-5. Everglades water depths from two months ago (left), one month ago (center) and present (right), based on SFWDAT.

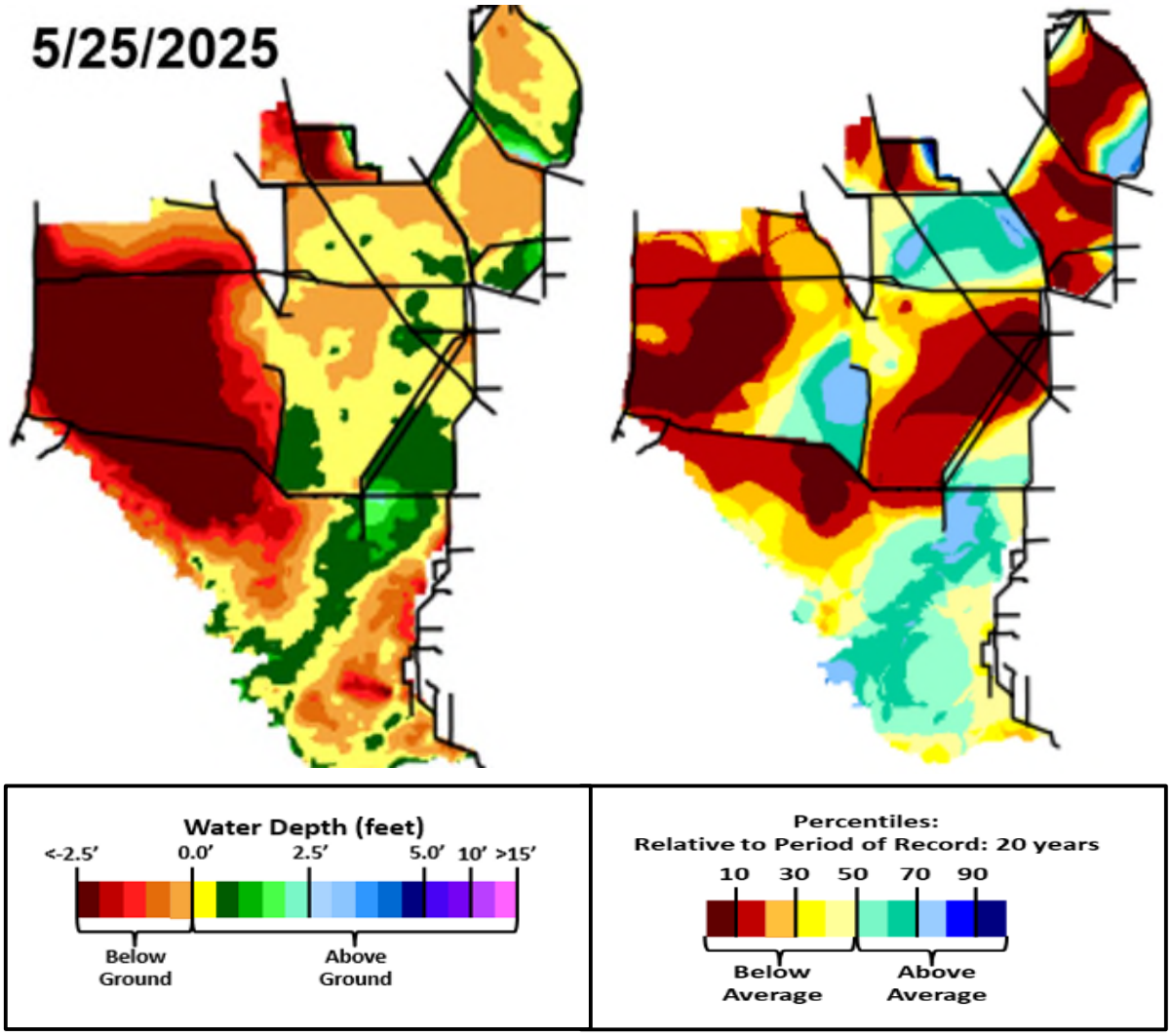

Figure EV-6. Present water depths (May 25, 2025) compared to the day of year relative to average (percentile) over the previous 20 years.

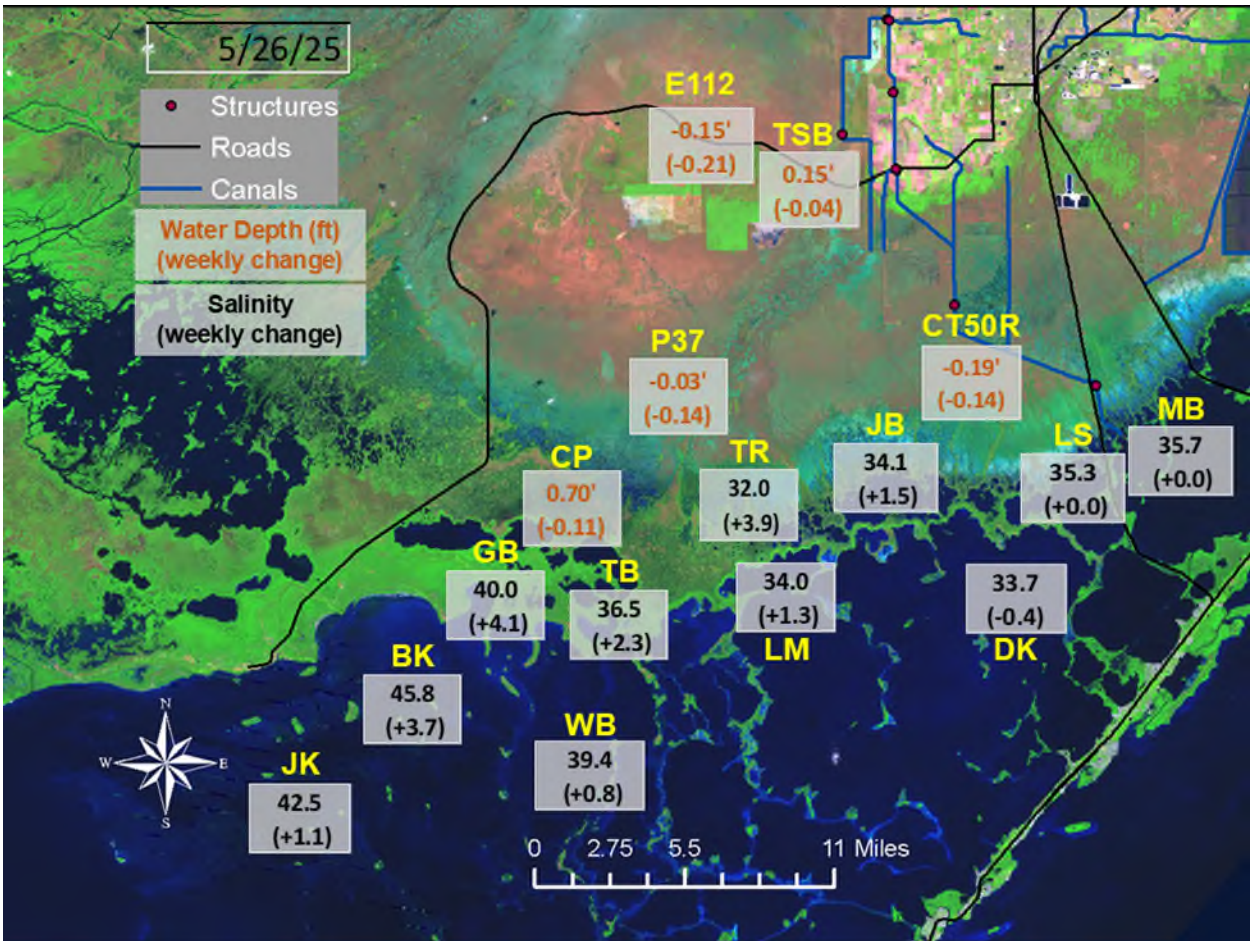

Figure EV-7. Taylor Slough water depths and Florida Bay salinities with changes since a week ago.

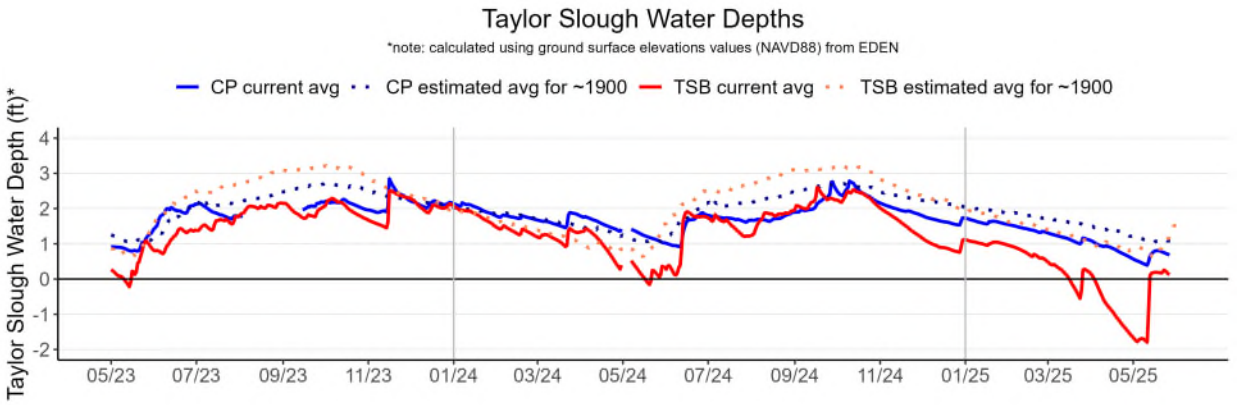

Figure EV-8. Taylor Slough water depth time series for Taylor Slough Bridge (TSB; northern slough) and Craighead Pond (CP; southern slough).

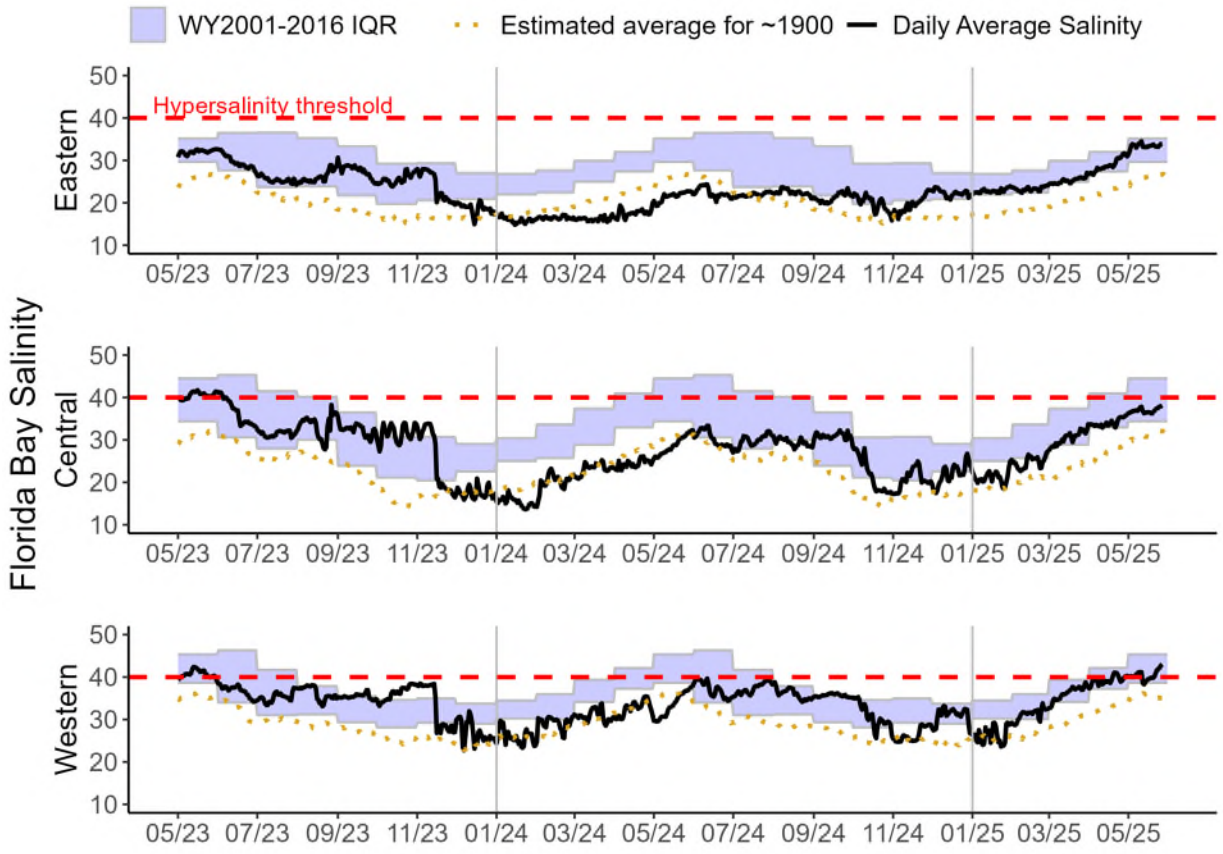

Figure EV-9. Eastern (top panel), Central (middle panel) and Western (bottom panel) Florida Bay daily average salinities with WY2001-2016 interquartile (25-75 percentile) ranges (IQR) and estimated historical daily average salinities. The hypersalinity threshold indicates the level at which salinities start to become harmful to seagrass.

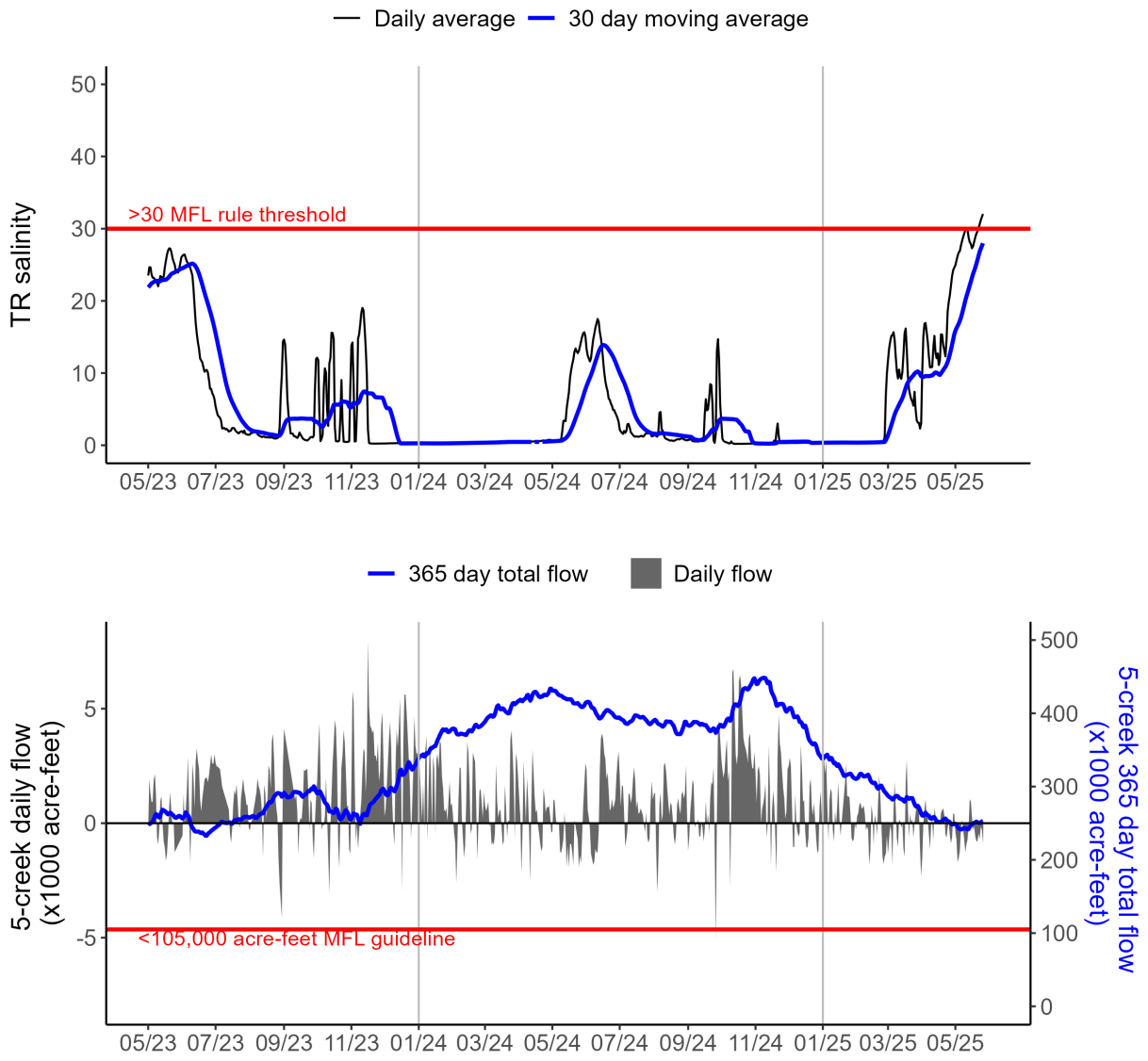

Figure EV-10. Salinity at Taylor River (TR; top) and creek inflow to Florida Bay (bottom) from the five major creeks (McCormick Creek, Taylor River, Mud Creek, Trout Creek, and West Highway Creek). The 30-day moving average salinity and 365-day total creek flow are tracked for the Florida Bay MFL criteria.

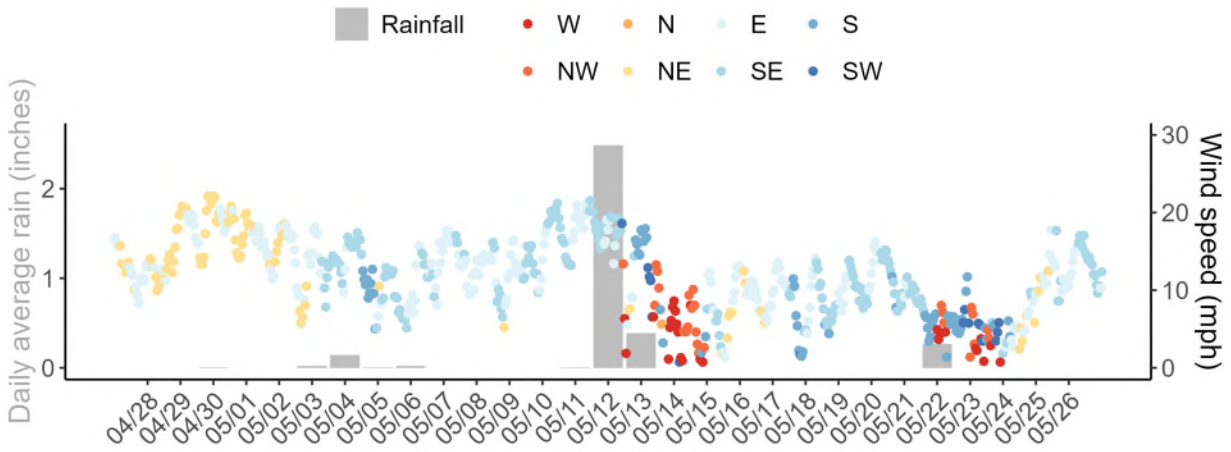

Figure EV-11. Daily average rain across Taylor Slough and Florida Bay, along with hourly average wind speed and direction (measured at Long Key) in Florida Bay over the past four weeks.

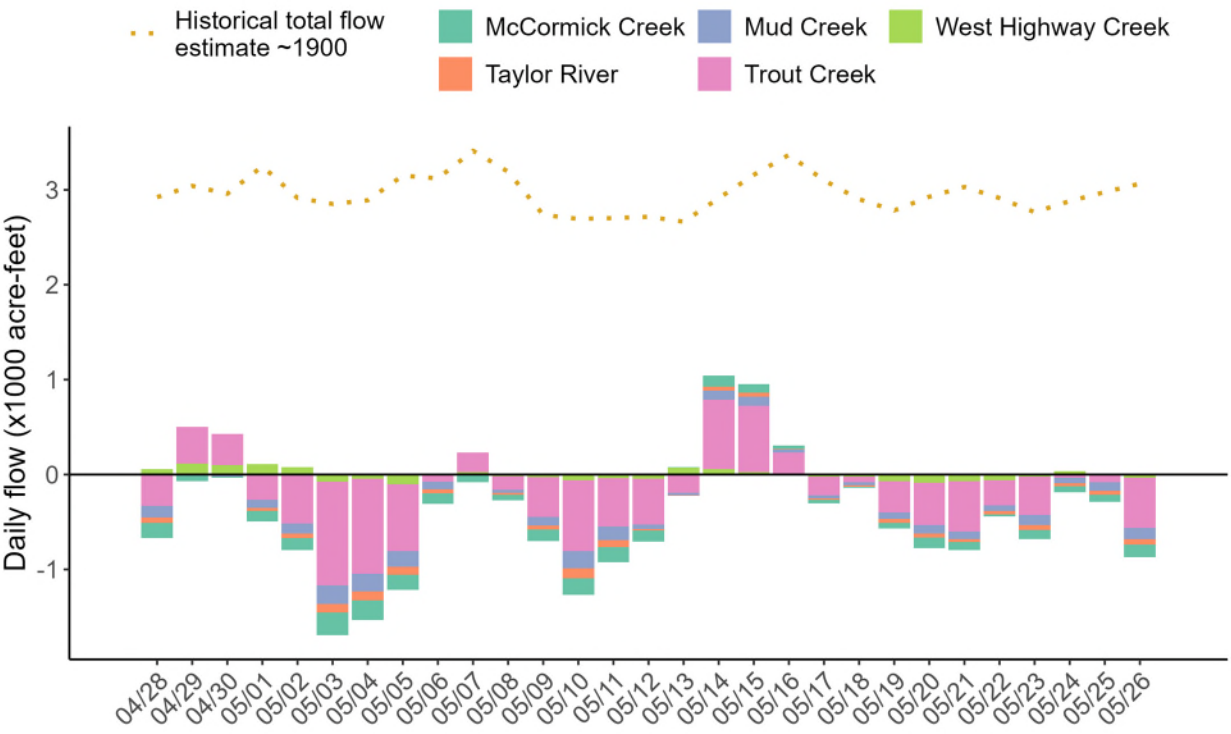

Figure EV-12. Daily average creek flow summed between five creeks with estimated historical daily flow over the past four weeks.

Table EV-2. Weekly water depth changes and water management recommendations

SFWMD Everglades Ecological Recommendations, May 26, 2025 (red is new)			
	Weekly change	Recommendation	Reasons
WCA-1	Stage decreased by 0.15 feet	Recession rate of less than 0.06 feet per week.	Protect within basin and downstream habitat and wildlife. Preserving suitable wading bird foraging habitat throughout the nesting season.
WCA-2A	Stage decreased by 0.02 feet	Ascension rate no faster than 0.18 feet per week.	Protect within basin and downstream habitat and wildlife. Preserving suitable wading bird foraging habitat throughout the nesting season.
WCA-2B	Stage decreased by 0.13 feet	Recession rate of less than 0.12 feet per week.	Protect within basin and downstream habitat and wildlife.
WCA-3A NE	Stage increased by 0.19 feet	Ascension rate no faster than 0.18 feet per week.	Protect within basin and downstream habitat and wildlife. Preserving suitable wading bird foraging habitat throughout the nesting season.
WCA-3A NW	Stage increased by 0.26 feet	Ascension rate no faster than 0.18 feet per week.	
Central WCA-3A S	Stage increased by 0.07 feet	Recession rate of less than 0.03 feet per week.	Protect within basin and downstream habitat and wildlife. Preserving suitable wading bird foraging habitat throughout the nesting season.
Southern WCA-3A S	Stage decreased by 0.05 feet		
WCA-3B	Stage increased by 0.18 feet	Recession rate of less than 0.12 feet per week.	Protect within basin wildlife.
ENP-SRS	Stage decreased by 0.11 feet	Make discharges to ENP according to COP and TTFF protocol while adaptively considering upstream and downstream ecological conditions.	Protect within basin and upstream habitat and wildlife.
Taylor Slough	Stage changes ranged from -0.04 feet to -0.21 feet	Move water southward as possible.	When available, provide freshwater to promote water movement.
FB- Salinity	Salinity changes ranged from -0.4 to +4.1	Move water southward as possible.	When available, provide freshwater to promote water movement.